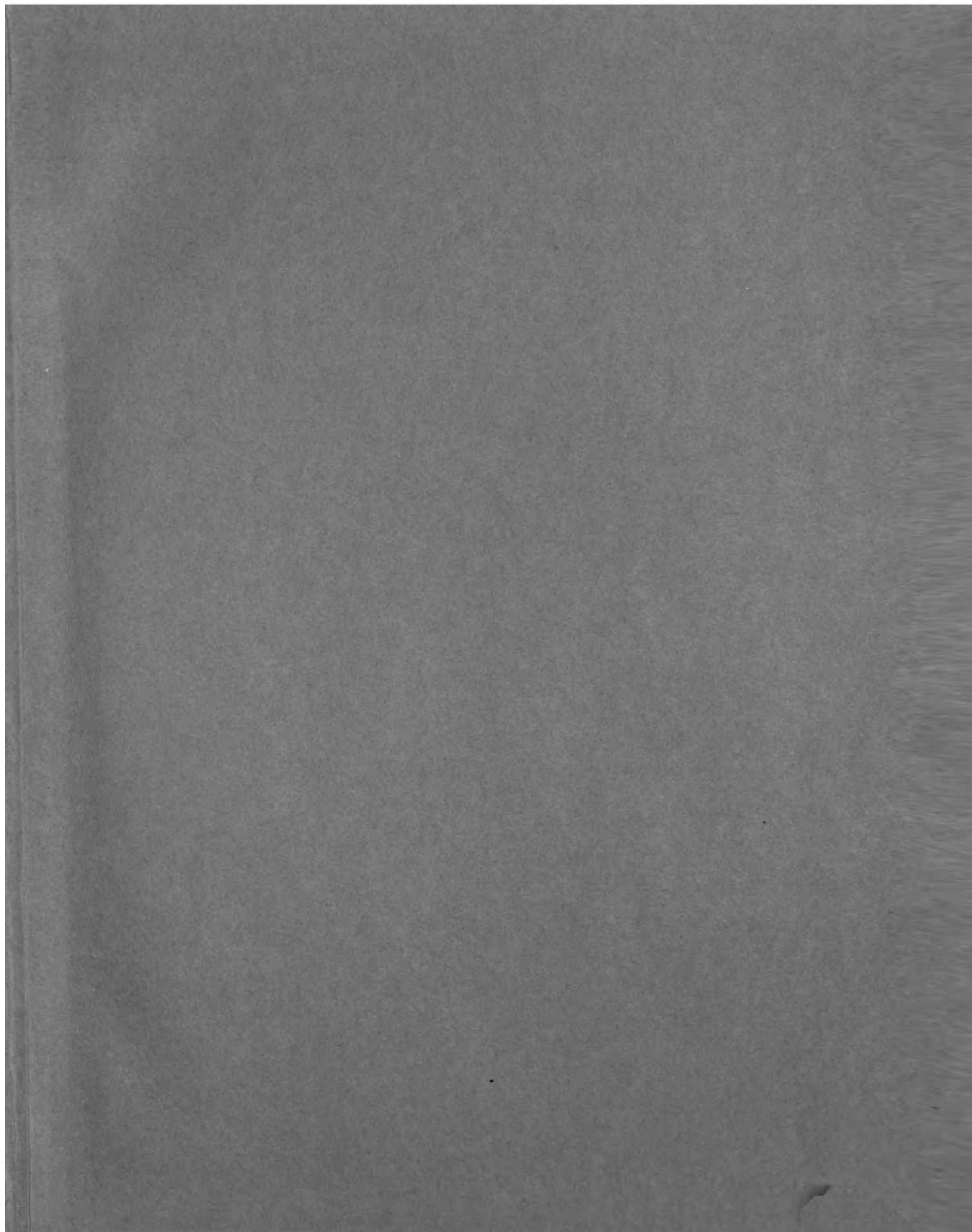




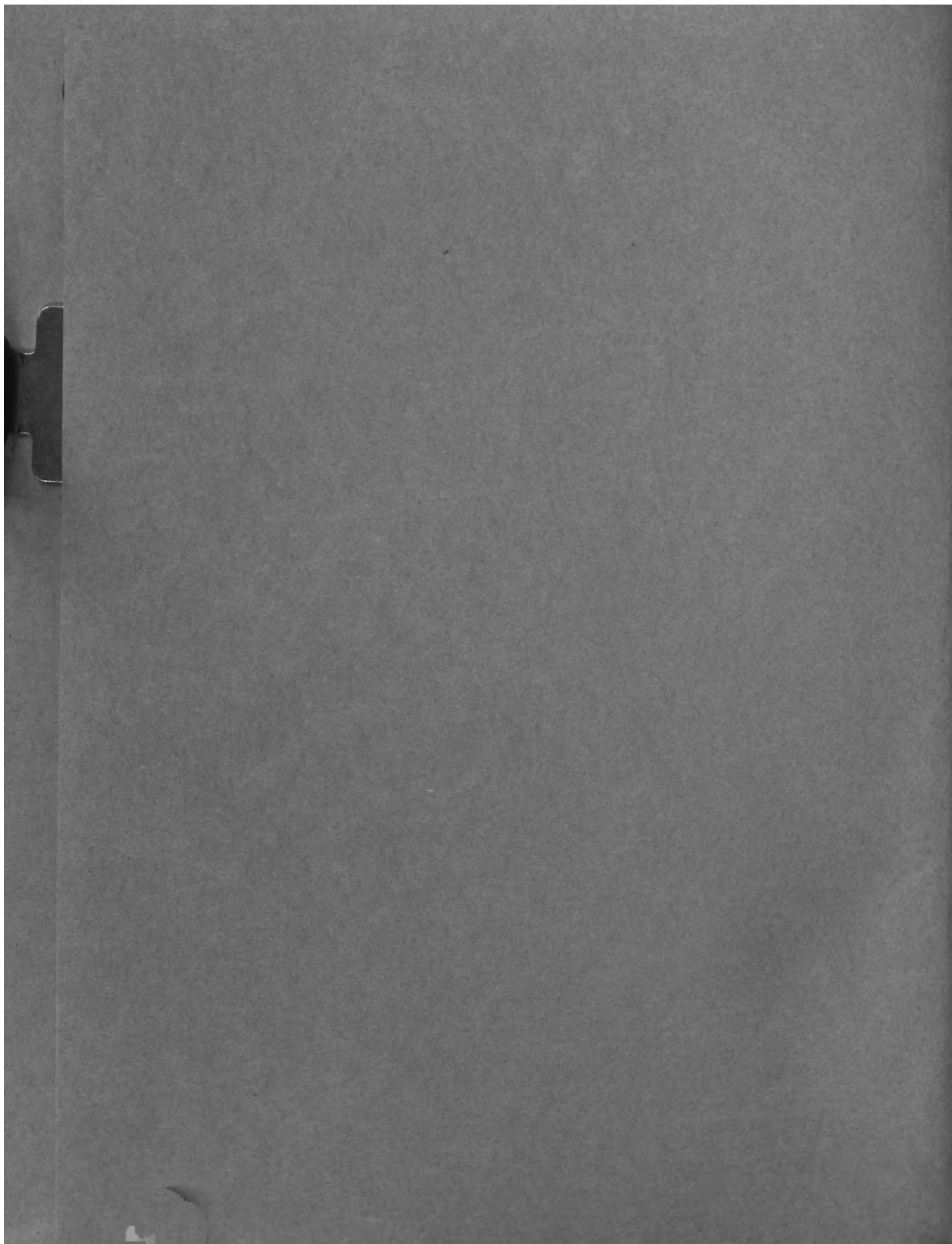


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THE  
VETERINARY RECORD

A Weekly Journal for the Profession.

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EDITED BY  
WILLIAM HUNTING, F.R.C.V.S.

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VOLUME XXV.  
JULY 1912, TO JUNE 1913.

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# THE VETERINARY RECORD

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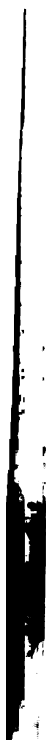




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# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1268.

OCTOBER 26, 1912

VOL. XXV.

## INSURANCE COMPANIES AND VETERINARY CONTRACTS

This week our correspondence column contains particulars of a proposal which an Insurance Company is circulating to practitioners. Its essential feature is that the insurance company should undertake veterinary contracts with horse-owners and engage and remunerate practitioners to carry out the work attached to them. The scheme is a novel one; and it must be said that it appears open to many objections. Any such arrangement, as our correspondent points out, might give rise to various complications with regard to professional etiquette. Another objection is the well-known reluctance of insurance companies to sanction the destruction of horses, which is often carried to an unjustifiable extreme. We know of cases in which this has caused serious trouble; and it might place a veterinary surgeon, who was treating the horse and was employed by the insurance company—not, as heretofore, by the owner—to do so, in a very awkward position indeed. Again, bearing in mind what we know of the fees usually paid to our members by insurance companies, we may well ask what the probable effects of this scheme—especially if it became generally adopted—would be upon the rates for veterinary contracts. They are often far too low already; but it seems very likely that this proposal might end in bringing them still lower. These are only a few of the objections to the plan; possibly our readers may suggest other points for or against it. Speaking plainly, we distrust it.

## THE INTERNATIONAL VETERINARY CONGRESS.

The latest meeting of the Organising Committee of this Congress was encouraging. The Treasurer's subscription list, though still of course falling far short of the ultimate minimum requirements, was hopeful; and an excellent provisional list of subjects for discussion at the Congress itself has been drawn up for submission to the Permanent Committee at the Hague. Probably the Permanent Committee will make considerable additions of their own; but they are almost certain to accept every subject suggested in the English list. Good progress, then, is being made; but a great deal remains to be done in the way of funds before the Congress is assured of complete success. The amount collected already shows that it is within our power to raise the remainder.

## A CASE OF DOUBLE ILIAC THROMBOSIS.

By W. HUNTING, F.R.C.V.S.

On August 22nd last I saw, in consultation with Mr. Henry Smith, of Worthing, a bay gelding which had shown repeated attacks of lameness. When brought out of the stable the horse was slightly lame on one hind leg, as the result of a recent wound inside the hock caused by an accident with some wire. Taken into a paddock and galloped he soon began to go stiff behind, and in a few minutes was so lame in both hind limbs that he was pulled up. The lameness affected both limbs about equally, and the action was remarkable—as though the hind legs and quarters were one wooden piece and moved on a pivot in the loins.

When the horse was pulled up he was blowing and sweating, but no sweat appeared on the hind limbs. The muscles of the quarters and thighs were hard and rigid. The veins on the inside of the thighs were diminished in size, but still apparent. The temperature of the legs taken by the hand on the inside of the tibial region was not much altered, but as both legs were affected there was not the opportunity for comparison which exists when only one leg is affected.

A diagnosis of iliac thrombosis was made and our advice to slaughter was anticipated by the owner—Mr. Gore—who said he should keep him no longer, and that we could have him for post-mortem examination.

A few days later the horse was sent to the Royal Veterinary College. After one day's rest he was seen by Prof. Macqueen, Mr. Leslie Sheather, and myself. He was galloped on the school ride, and in three or four minutes began to show stiffness behind—rather more on the off side than the near. He was kept moving for another minute or two, and then positively refused to go further. He was sweating and blowing, the hind legs were dry, the muscles of haunch and thighs spasmodically rigid. The tibial region of the off leg was colder than that of the near. There was no sign of falling or any attempt to lie down, nor was there knuckling of the fetlock which is often noticeable in one-sided attacks.

The more violent symptoms abated in about twenty minutes, and in an hour or two all acute signs disappeared. Next morning no lameness or stiffness remained.

*Note by Mr. HENRY SMITH.*—"Royal Eagle is a bay gelding, four years old, by Desmond—Bird of March. He won the Findon Plate of £1000 the latter end of April, 1911, ran well in the Derby same year but was not placed. He was bought at

last December sales by Mr. Gore, and tried on the Downs at Findon several times early in the year, but always with the same result. In February he was castrated and given a long rest. After this he was treated for cramp and given more rest. He was always lively and had a "buck and a kick" in him. Nothing noticeable until he had galloped two or three furlongs. Sometimes it took longer, sometimes less before he showed the cramped condition of the muscles, which was described by the head lad as "set fast in the hind quarters." History of the animal showed he had been examined by several veterinary surgeons during last year but nothing definite had been arrived at. I cannot find that he ran after the 1911 Derby, and I believe he was under treatment as far back as midsummer of last year."

The post-mortem was made by Prof. Macqueen and Mr. Leslie Sheather. I append by the former, remarks and a report by the latter gentleman, to whom I am indebted for photo of the arteries.

*Remarks by PROFESSOR MACQUEEN.*—I have no important comments to make regarding the case, but I consider the horse presented certain symptoms which are unusual in cases of aortic thrombosis.

While under observation he did not trot but persisted in cantering—his accustomed gait. During exercise the hind limbs gradually lost power and length of step as they became rigid, and just before the horse stopped voluntarily the hind limbs, now widely separated, were advanced by short jumping movements, without apparent flexion, but with marked elevation of the hindquarters. Although he did not fall, I think if he had been forced to continue going he would have gone down. The absence throughout of knuckling at the fetlock was probably due to the vascular obstruction interfering with the function of the flexor muscles. I regret that the dissection of the limbs was not carried right down to the fetlocks.

#### POST-MORTEM EXAMINATION.

Apart from the thrombosis no abnormalities were encountered in the carcass, save that the heart appeared to be a little larger than might have been expected, the enlargement being general.

It might here be stated that a very careful search was made for evidence of invasion of the circulatory system by worms, but with negative result.

The thrombosis commenced at a point about 1½ inches in front of the points of origin of the external iliac arteries. Here the thrombus was white in colour and not attached to the vessel wall. For the rest of its extent the thrombus was dark red in colour.

The thrombosis was apparently incomplete, since on section fissures could be observed in the clots, and on microscopic examination these fissures were found to contain what appeared to be perfectly normal blood.

The process had apparently commenced at a number of different places, as it was found that the thrombus was not continuous. There was a gap of

more than half an inch, as shown in the photograph, between the white clot in the aorta and the red clot in the external artery on the off side. At such places at this the vessel appeared to be of about normal diameter, whereas at places where thrombosis had occurred there was a variable amount of dilatation, amounting in some cases to twice the normal size, or even more.

The external vessel on the off side was most seriously involved. Here the thrombosis was traced down the leg to the point where the femoral artery crosses the shaft of the femur. The vessel was followed beyond this for several inches, but it appeared to be quite patent.

In the case of the corresponding vessel on the opposite side the process was found to have extended as far as the point of origin of the deep femoral artery.

The internal iliac arteries were thrombosed on both sides, and, as in the case of the external vessels, the artery on the off side was the more seriously involved. This vessel was traced for a distance of about 9 inches before the lumen was found to be free of clot.

The internal iliac artery on the near side was found to be affected for a distance of 5 or 6 inches. All the branches given off from these two vessels were affected to some degree.

The middle sacral artery was also thrombosed.

The photograph shows the upper surface of affected vessels. The wall of the aorta has been removed to show the loose white clot in this position. The dark colour of the thrombus in the other vessels is clearly shown where portions of the wall of the vessels have been cut away. For convenience in preserving, the terminal portions of the affected vessels were not kept, and consequently the photograph does not show the whole extent of the lesion.

#### CUTANEOUS MEDICATION WITH CREOSOTE.

Three horses suffering from mange were treated with one part of creosote to eight parts of linseed oil. One animal was badly infected, and a quarter of the body surface was dressed daily. The others were affected in small areas on different portions of the body.

Twenty-four hours after the first application symptoms of distress were shown, the animals were noticed to be breathing quickly.

The following day I attended and found that though varying in severity the symptoms were of a similar nature in each case; the breathing was accelerated, and exactly similar to that seen in a broken winded horse. Exercise aggravated the condition. In all cases there was hyperthermia, the greatest temperature registered being 104 F. There was no blistering or irritation of the skin. The horses throughout fed well and were in good spirits. The disturbance subsided daily. On the fifth day the horses were normal. The medicaments acted excellently on the skin.

The symptoms are considered as having been caused by the absorption of the creosote, and not by suppression of the functions of the skin, as in two horses the area dressed was not extensive. A much weaker strength of creosote dressing is advisable.

R. P. JONES, M.R.C.V.S.

Government Veterinary Officer,  
East London, Cape Province.

#### LESIONS ON PENIS OF ENTIRE.

Chestnut entire, reported as having sores and ulcers on penis, noticed during copulation.

On examination it was found that there was an absence of swelling and heat of the sheath, and nothing visible except when the penis was extended. During the state of erection it was seen that on the near side of an anterior fourteen inches or so there were vesicles and ulcers of the external surface of the penis. The glans penis was normal, and there was no interference with micturition. The vesicles contained clear fluid and had a basic area of about the size of a sixpenny piece. The ulcers were shallow, and contained a small quantity of whitish yellow pus, altogether there were about twenty lesions. Dourine was suspected at first, but the absence of cutaneous plaques and other manifestations, including a negative microscopical examination of the blood, together with the unilateral nature of the affection rather negated the idea.

It was observed that both fore legs had been blistered, and the conclusion arrived at was that during a state of erection the near fore legs must have been lifted and brushed against the penis, resulting in the adhesion to it of some of the blister.

The progress of the case, and the fact that blistering of the legs and condition of the penis took place within thirty-six hours of each other confirmed the diagnosis.

This case appeared rather interesting, as lesions of the penis of this nature are uncommon, and the cause unique.

J. H. L. LYONS, M.R.C.V.S.

R. P. JONES, M.R.C.V.S.

Government Veterinary Officers,  
East London, Cape Province.

The Departmental Committee on the Public Veterinary Services, of which Sir Alfred Hopkinson, K.C., is Chairman, held its first meetings on the 18th and 19th inst. at Winchester House, 21, St. James's Square, all the members being present. Witnesses representing the Colonial Office, India Office, the Army Veterinary Service, the Royal Veterinary College, London, and the Royal Veterinary College of Ireland, Dublin, attended and gave evidence before the Committee.

Board of Agriculture and Fisheries.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### SPASM OF THE DIAPHRAGM AFTER THE INJECTION OF ESERINE AND ARECOLIN.

Goldberger, of Krojanke, records the case of a well nourished mare, six years old, which he treated for colic. The animal received a subcutaneous injection of eserine and arecolin combined, which caused a remarkably vigorous passage of softened faeces. About thirty minutes after the injection the horse showed nervous spasms of the diaphragm. The spasms were sometimes so violent that they convulsed the whole body, the animal meanwhile slightly bending the hind limbs together. They were repeated more or less violently at the rate of from ten to fifteen per minute. They did not correspond in point of time with the pulsations of the heart, which were not increased in number, though somewhat weakened.

After the expiration of an hour the spasms had become sensibly weaker, but were still present at the rate of eight per minute. The horse now received an injection of 0.5 gramme (= nearly  $7\frac{1}{2}$  grains) of morphine, upon which the spasms completely disappeared after about ten minutes, and did not return. Next day the animal was reported to Goldberger as healthy.

Goldberger remarks that the diaphragmatic spasms were reflex in origin, having been induced by the violent contractions of the gastro-intestinal tract which were caused by the injection of eserine and arecolin.—(*Berliner Tier. Woch.*)

##### SUCCESSFUL TREATMENT OF GOITRE IN THE DOG.

Miller, of Tübingen, records the case of a small mongrel dog, four years old, which was brought to him with the history that for some time past a swelling, gradually increasing in size, had been forming upon the neck. Besides this the dog was suffering from difficulty of breathing, salivation, deficient appetite, and depression.

By palpation of the cervical region Miller ascertained that the right lobe of the thyroid had assumed the circumference of a hen's egg, and the left lobe that of a duck's egg. Both portions felt firm.

Miller made use of the following ointment, which is given in Ubele's "Handlexikon der tierärztlichen Praxis"—Iod. pur. 1 part; Potass. iodi, 10 parts; Aqua. destill., 10 parts; Adip. suill., 20 parts; Adip. lan., 80 parts. The hair was removed from the region, and a quantity of this ointment (about the size of a walnut) was thoroughly rubbed into the swelling once daily. Every third or fourth day the dog was well bathed in warm water and soap.

After the expiration of ten days a diminution of the swelling on the left side of the neck had appeared. The general condition of the dog was so far improved that he took copious nourishment and apparently felt quite well. The difficulty of breathing and the salivation were still present, but only in an insignificant degree. The treatment was

continued for four weeks longer: and, after 121 grammes (about 5j. short of 3iv.) of the above ointment had been used, the swelling had disappeared without leaving a trace behind, and the dog was completely healthy. No recurrence of the swelling appeared.—(*Berliner Tier. Woch.*)

#### THE ACTION OF DIGALEN AS A SPECIFIC IN AZOTURIA.

Fürthmaier states (*Tier. Zentralbl.*) that, according to his experience, digalen shows a rapid and certain effect, not only in severe cases of pneumonia, but also in azoturia. Kofler confirms this effect. Both these veterinarians use digalen in azoturia as follows.

When great restlessness and sweating are present they first of all inject 0.5 gramme (nearly 7½ grains) of morphin. hydrochlor. in solution. When calm has supervened, 15 grammes (about 3ss.) of digalen is injected subcutaneously. In two, or at most four hours the horses get up and remain standing quietly. Only in rare cases is it necessary to repeat the injection of digalen the next day. The dark colour of the urine disappears naturally.—(*Berliner Tier. Woch.*)

#### THE GERMICIDAL POWER OF ALCOHOL.

Prof. Schumberg, of Hanover, has been working upon this subject, and reports (*Deutsche Mediz. Woch.*) his conclusions. Hitherto the attempts which have been made to ascertain the disinfecting power of alcohol have apparently indicated that a bactericidal property should not be attributed to absolute alcohol.

This judgment, however, depends upon a faulty arrangement of the experiments. For if, as hitherto, silk threads, glass beads, and coverglasses upon which bacterial fluids have been dried are used as test objects, then the alcohol, in consequence of the coagulation of the external bacterial layer, is generally unable to penetrate to the internal layers. But if bacterial fluids are dropped into absolute alcohol so that it can reach them from all sides, then the bacteria are destroyed almost immediately.

It appears that the germicidal strength of absolute alcohol is as high as that of a 1 in 1000 sublimate solution, or still higher. This experimental result explains the fact that absolute alcohol will disinfect the skin and hands without washing with soap. The process depends neither upon a hardening nor a fixing of the bacteria, but upon the destructive power of alcohol by the withdrawing of water and the coagulation of albumen.—(*Berliner Tier. Woch.*)

W. R. C.

#### TENTH INTERNATIONAL VETERINARY CONGRESS, LONDON, 1914.

A meeting of the Organising Committee was held at the Royal College of Veterinary Surgeons, Red Lion Square, W.C., on Thursday, October 10th. There were present Sir John M'Fadyean in the chair, Mr. S. Stockman, hon. sec., Mr. F. W. Garnett, hon. treasurer, Messrs. Abell, Abson, Almond, Banham, Barrett, Bond, Bradley, Brittlebank, Bullock, Carter, Clarke, Crabb, Dunstan, Hobday, Lawson, Lloyd, Locke, McCall, Mac-

Cormack, Macqueen, Male, Mettam, Price, Pringle, Share-Jones, Shave, Spicer, Todd, Townsend, Trigger, Villar, Wooldridge.

The SECRETARY read the minutes of the previous meeting, which were approved.

The SECRETARY reported that Mr. J. A. W. Dollar had acceded to the Committee's request that he should become a member, and that a letter had been received from Major-General Pringle suggesting that Major Todd, who had done a good deal of work already for the Committee, should also be elected a member. This was unanimously agreed to.

Letters of apology for absence were submitted from Messrs. J. H. Taylor, W. A. Hancock, E. C. Winter, W. J. T. Bower, Dr. Clement Stephenson, G. Howie, W. Ascott, John Healy, W. E. Litt, A. Gofton, F. G. Samson, J. Peddie, E. Faulkner, L. Gooch, A. Inglis McCallum, Major-General Smith, F. W. Emery, J. A. Todd, R. Roberts.

Mr. GARNETT, as hon. treasurer, reported that up to date the sum of £380 had been paid into the bank by subscribers, and that further considerable sums had been promised. Although many of the principal Societies had not yet sent in a list of their subscribers, he wished it to be known that each Society subscribing was credited with the amount of subscription which might be paid in by any member. They had not accomplished half of what they set out to do. He trusted that all members of the Committee would use their best endeavours to get their friends to subscribe. It was a great work they had in hand, and he felt certain the profession in England would carry it out in a worthy manner. Apparently the mode of payment which seemed most convenient was that of subscribing a certain sum each year for three years rather than a lump sum paid down. Bankers slips had therefore been prepared, by means of which subscribers could pay any sum now, the same amount to be repeated on January 1st, 1913, and 1914. By the use of these slips much trouble would be saved to the officers of the Society.

The SECRETARY also stated that it would be a great convenience to him if subscribers would let them know how much they would be able to subscribe, in order that they might know what funds they could count on. They had already had many expenses, and money was required to meet greater expenses which would have to be incurred.

The CHAIRMAN said it would be agreed that the statement they had just heard was so far satisfactory, but there would need to be no slackening of the efforts to collect money if the Congress was to be carried out in a style at all comparable to the preceding Conferences.

The Chairman, continuing, said that the next item on the Agenda was the selection of the subjects for discussion at the Congress. In order to make clear the method of procedure, he would read extracts from the permanent bye-laws or statutes of the Congress.

"The subjects to be placed upon the orders of the day of the next Congress are to be selected by the Organising Committee in accord with the permanent International Committee, having regard to the resolutions in the matter which may have been adopted by the last Congress, as well as proposals which may be submitted to the Permanent Committee by individual members, or by professional bodies, not later than one year before the meeting of the Congress."

That was to say that the subjects for discussion at the Congress had to be selected by the Organising Committee in accord with the Permanent Committee. That meant that the Organising Committee had to draw up a programme of subjects, and that had to be submitted for the approval of the Permanent Committee. There was to be a meeting of the Permanent Committee at Lyons in a fortnight's time, at which Mr. Stockman and himself were to be present. They would like to be able



to submit the resolutions passed at that meeting to the Permanent Committee.

Another bye-law ran as follows :—

"For treatment of the subjects placed upon the orders of the day, sections shall be formed if required, their number and description shall be fixed by the Organising Committee *pro tem.*, after having consulted with the Permanent Committee."

They had not only to make suggestions with regard to the subjects to be brought before the Congress, but also how many sections there should be.

Another bye-law provided that "The discussions of the Congress shall be held in chief and in sectional meetings."

They had therefore also, if they so approved, to suggest certain subjects as being suitable for discussion at general meetings of the whole Congress, the others being discussed in the separate sections. Mr. Stockman and he had drafted certain suggested subjects, which were open to full discussion or amendment. The sections proposed were the same as at the last Congress at the Hague. They suggested the following five sections :—

1. Veterinary Science in relation to Public Health.
2. Pathology and Bacteriology.
3. Epizootiology.
4. Veterinary Medicine and Surgery.
5. Tropical Diseases.

Mr. STOCKMAN stated that an enquiry had been made by Major-General Smith as to whether there would be a military section.

Major-General PRINGLE said he hoped there would not be. It would be difficult to arrange it without interfering with mobilisation. There was really no need of a special military section for there would not be any subject in connection with Veterinary Medicine and Surgery of interest to military officers which could not be discussed in the ordinary sections. He would ask, however, that a couple of hours might be set aside in which they might meet with their military friends from abroad.

The CHAIRMAN, in reply, stated that shortly before the Congress met, when it was known who were to be at the Congress, it would be easy to arrange for such a meeting.

Mr. SLOCOCK proposed, and Mr. Banham seconded, that the Sections 1 to 5, as suggested, be the sections for the forthcoming Congress. This was put to the meeting and carried unanimously.

The CHAIRMAN said that with regard to the general meetings, they did not propose to follow the precedent set at the last Congress. Then a larger number of subjects were set down for discussion at the general meetings. It did not seem, however, to be a very good plan to have a general meeting of the Congress every day, because it was one of the rules that when general meetings were held, the sectional meetings should not sit. Too large a proportion of the time of the Congress was apt to be taken up in discussing some three or four subjects, whereas the subjects put down for discussion in the sectional meetings could not get adequate discussion. Again he was only explaining what he and Mr. Stockman thought about it, and if it appeared to anybody that any subject in the draft programme before them which had been put in a section would be better discussed in a full meeting, it was of course open for him to move accordingly.

After a short discussion, in which the Chairman explained that a general discussion would require a whole afternoon, and that there would in any case be time for six meetings only during the week of the Congress, it was decided that there should be two general meetings to deal with—

1. Foot-and-mouth disease.
2. Tuberculosis.

Mr. LLOYD then proposed, and Mr. Banham seconded, that the subjects suggested for Section 1 be approved. This was carried. The subjects are as follows :—

#### VETERINARY SCIENCE IN RELATION TO PUBLIC HEALTH.

1. Meat poisoning—its pathogenesis and the measures necessary to guard against it.
2. General principles to be observed in the inspection of carcasses and organs of tuberculous animals with a view to determining their safety as articles of human food.
3. Public control of the production, distribution, and sale of milk in the interests of human health.
4. Disinfection of wagons.

Sections II. and III. were also approved as follows :

#### PATHOLOGY AND BACTERIOLOGY.

1. John's disease.
2. Bovine Piroplasmoses (European), with special reference to their etiology.
3. The relationship of the so-called types of tubercle bacilli.
4. Ultra-visible viruses.
5. Distemper—etiology and vaccination.

#### SECTION III. EPIZOOTIOLOGY.

1. Anthrax.
  2. Abortion.
  3. Swine-fever.
  4. Glanders.
- Section IV. was amended by the substitution of "Laminitis" for "Quittor," and the addition of "Sarcoptic Mange in Horses."

Sections IV. and V. were then approved as follows :

#### SECTION IV. VETERINARY MEDICINE AND SURGERY.

1. Anæsthesia—local and general.
2. Laminitis.
3. Roaring in horses.
4. The use of drugs in the treatment of diseases caused by nematode worms.
5. Sarcoptic mange in horses.

#### SECTION V. TROPICAL DISEASES.

1. The Piroplasmoses (excluding redwater).
  2. Methods of dealing with ticks concerned in the transmission of disease.
  3. Trypanosomiasis of animals.
- This concluded the business of the meeting.

### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting was held on September 5th, at the Grand Hotel, Manchester, the President, J. W. Brittlebank, Esq., in the chair. The attendance included Messrs. Taylor, Wolstenholme, Hopkin, Carter, Woods, Stent, Locke, Edwards, Noel Pillers, Turner, Whitehead, Heyes, Allen, Spruell, Richmond, and Wilson.

Apologies for absence were received from Messrs. Wharam, Packman, Edwards, McKinna, Lloyd, Abson, Clarkson, Eaton-Jones, and Faulkner.

By request of Mr. Heyes the portion of the minutes referring to his election as a member was read. In his opinion the record of his having returned thanks on being so elected might be misconstrued. The President pointed out that it was quite customary for new members on election to return thanks, and whilst he understood Mr. Heyes' position he could not allow past history to be re-opened, whereupon Mr. Heyes expressed himself satisfied. The minutes were then confirmed on the proposal of Mr. Carter, seconded by Mr. Wolstenholme.

*Nominations.*—Messrs. D. MACGREGOR, Preston; F. T. BLAKEMORE, Hyde; E. E. WOOD and LORD, Eccles, were nominated for membership.

*Correspondence.* The Secretary read a letter from Mr. Noel Pillers, who had been deputed to wait upon Mr. F. E. Jones, Liverpool, regarding his proposed resignation from the Association. Mr. Jones adhered to his intention to resign, and it was accepted with regret, on the proposal of Mr. Taylor, seconded by Mr. Wolstenholme. Mr. Pillers was thanked for his services.

Mr. R. Price, Tarvin, sent a letter of resignation owing to ill health. Mr. Edwards offered to see Mr. Price before the resignation was accepted; the matter was therefore deferred.

Mr. STENT intimated that Mr. Somers, Leeds, intended to resign, and he seconded a proposal by Mr. Carter that this resignation be accepted with regret.

Mr. LOCKE reported that the Council, as instructed, had duly considered the letter from the Liverpool V.M.A. in regard to obtaining a larger grant for pathology for the University, and recommended that as the funds of the Association were at present, they do not agree to make an annual grant.

Mr. PILLERS moved, and Mr. Edwards seconded, that the recommendation of the Council be approved. This was carried.

Mr. LOCKE stated that in connection with the entertainment fund for the National Veterinary Association's meeting in Manchester a sum of £75 7s. was subscribed without calling on the guarantors. The balance in hand was £4 18s.

Mr. STENT stated that there was a balance of 6/6 from the badges.

Mr. TAYLOR moved that the total balance of £5 4s. 6d. be handed over to the fund to be raised for the International Veterinary Congress to be held in 1914. This was seconded by Mr. Stent and adopted.

The PRESIDENT remarked that in regard to the visit of the National Veterinary Association, it was only fitting that he should return thanks to the members of the Lancashire V.M.A. for the generosity they displayed and for the loyal manner in which they supported the officers in carrying out their duties. He felt sure that most of those who attended were well pleased with their reception and many individual expressions of pleasure had been received. Personally he wished to be placed on record his indebtedness to the members for their goodness to him as President of this Association.

Mr. WOODS, in seconding, said that if he had to mention who had had the hardest work it would be their President and Secretary.

#### PATHOLOGICAL SPECIMENS.

##### ULCERATED DUODENUM IN A HORSE.

Mr. HOPKIN submitted a specimen of thickening and ulceration of duodenum in the horse—a hunter—purchased in June. Shortly after, it had what were supposed to be attacks of colic. When he saw it in October it was exhibiting symptoms of dull abdominal pain—long continued—not violent, anxious expression, walking and moving about in the box continuously. No temperature; pulse varying from 38 to 60. It was seen three times in three weeks, but treatment produced no improvement; 36 hours before death the symptoms were aggravated with continuous severe pain. Post-mortem examination revealed ruptured stomach, with duodenum thickened almost to occlusion with ulcers. A good amount of food was in the intestines, but it was difficult to understand how it had passed through the almost occluded orifice. The liver and spleen were diseased. Although thickening and ulceration of the duodenum is common in the human subject, Mr. Hopkin said he had not met with it before in the horse.

##### TUBERCULOSIS OF THE SPLEEN IN A HORSE.

Mr. STENT exhibited a specimen with the following particulars. The subject was a bay driving cob bought

in Wales when a four-year-old, and driven regularly from then up to last year, when it was blistered and turned out to grass for lameness. Early in June last it received treatment for influenza and in ten days resumed work. It soon commenced to lose flesh rapidly, and its appetite became irregular, with temperature around 101°. Shortly afterwards he noticed it was unable to turn round in the stall, and a distinct enlargement was noticed on each side of the fourth cervical vertebra which suggested tubercular infection. He decided to test with tuberculin, and 1cc. was injected when the temperature was 100° 8'. In nine hours the thermometer registered 104° 6', with tenderness around point of injection, from which time the temperature gradually fell to 102°. The animal was destroyed, and post-mortem revealed the spleen to be greatly infected with tuberculous nodules and a patch the size of a hen's egg in the right lung. The mesenteric and other glands did not appear to be infected, but were larger than normal. It was a question whether the disease was contracted from pasture infection, as the animal had been turned out on a dairy farm. He could trace no other means of infection.

Mr. WOLSTENHOLME asked whether any observations have been made as to this question of animals becoming infected with tuberculosis by grazing in the open air, because he understood that tubercle bacilli was most easily destroyed by sunlight.

The PRESIDENT replied that a great many observations have been made as to the infectivity of pastures, and Prof. Delépine is at present working on the subject. There are many details and reports which lead to the conclusion that there is little doubt about infection in that way. He could mention an experience of his own affecting one big ley. A certain park in Cheshire, where a large number of cattle are turned out every year, is well wooded, and naturally the cattle get under the trees where, often, the grass is rank and little sunlight can penetrate. It is extraordinary the number of cattle which, after being in the park, have tuberculous histories. This may be a coincidence, but if so it is a striking one.

Mr. WOLSTENHOLME remarked that sheep are constantly grazing in these pastures and they rarely develop tuberculosis, and it was also rare to hear of horses being so affected.

The PRESIDENT thought that much depended upon the economic strain as to the development of tuberculosis; dairy cattle are particularly liable, but sheep and horses hardly suffer that strain. He thought that tuberculosis in the horse was more common than was suspected.

Mr. CARTER recalled a case of tuberculosis in a horse which he had under treatment for months. The animal kept developing abscesses from which large quantities of pus were got; there was also wasting, and a reaction to the tuberculin test. On destruction it was found to be a most marked case of tuberculosis.

Mr. HEYES said he could mention many cases of tuberculosis in horses. One horse had been castrated as a yearling and nearly bled to death. Bleeding was stopped, and the animal apparently recovered, but never became vigorous. The owner was somewhat careless, and it was possible that the animal became infected from cattle; there appeared to be no other source of infection.

A horse which he himself owned developed tuberculosis. On purchase it appeared sound; illness commenced with drowsiness, followed by nodules on the skin with thickening, no suppuration, then wasting. Examination after that animal was killed showed that the spleen, lungs, and mesenteric glands were affected. Two previous owners of this horse had phthisis.

Whilst practising in London he has seen a large number of cases of tuberculous mesenteric glands, par-

ticularly in Belgian horses; the explanation suggested was that it was probably the result of giving these horses a large amount of milk on their arrival.

#### SPLINT UNDER SUSPENSORY LIGAMENT.

Mr. WOODS submitted a metacarpal bone showing, as he said, the best example of a splint under the suspensory ligament he had ever seen.

He also gave an account of another interesting case in a horse which had come to his notice. This was one which, to a young practitioner, would look like lymphangitis on the hind leg; close examination showed something more. The leg was as hard as a board from the hock down to the foot, and could not be pitted. The pain was intense, and no weight could be put on the leg at all. There was improvement for a time, but ultimately the animal became worse and was destroyed. A post-mortem examination proved that the case, which commenced as a phlebitis and cellulitis, terminated in synovitis and ulceration of the articular surface of the pastern joint.

#### A PROBLEM IN DIAGNOSIS.

Mr. CARTER contributed the following particulars:—The subject was a brown cart mare, No. 1727, the property of a large firm of carriers, and was taken ill on July 13th, showing colicky pains of a subacute character. A colic draught was at once administered by the horsekeeper, and I was summoned to attend. Upon my arrival the mare was lying down, quiet and apparently free from pain, with pulse and temperature normal, so also were the visible mucous membranes. She occasionally looked round at her near flank. Another colic draught was administered, and a stimulating liniment applied to the abdomen, after which she seemed to be alright, showing no other untoward symptoms, and was left for the night. The following morning she went to work, but was noticed to be dull and sluggish, and later had to return to the stable, where she remained more or less under treatment up to the time of her death, which occurred on August 27th, nearly seven weeks after the first onset of illness.

The symptoms during this long time were as interesting as they were puzzling for one to base a diagnosis, and were, generally, as follows: No appetite, general demeanour varied—some days she would appear quite bright as if she ailed nothing, perhaps on the next visit she would be found dull, occasionally hanging her head. When fed she would eat a few mouthfuls only, and then immediately lie down—this was a constant day-by-day occurrence, sometimes showing no other symptoms whatever, at other times she would show slight abdominal disturbance and look round at her near flank. A colic draught seemed to put her right again, but at times she would recover without medicament. At other times days would elapse without any symptoms of illness being shown, leading one to think she was recovering, and would soon be well again and fit for work. On one occasion, about three weeks after the first onset of illness, after examining her I was standing near her head when I detected a most abominable smell, and at once suspected gangrene of the lungs setting in; but no, I was mistaken, for the breath was quite sweet. But upon opening the mouth I was almost knocked over by the most horrible stench I think I ever experienced. The conjunctival and all the visible mucous membranes were deeply tinged with yellow, and there was at this time a torpid condition of the bowels; a few powders containing calomel and stomachics soon put matters straight, and a physic ball was administered with good results.

During the whole of this time the mare was eating very little, and continued the habit of lying down soon after a few mouthfuls of food, showing no signs of distress. It then occurred to me that possibly the mare

had toothache but a thorough examination of every tooth revealed nothing to account for her strange behaviour. All kinds of food, green and otherwise, were tried without any better results.

It was now becoming apparent that the mare was rapidly losing flesh, particularly along the back and hind quarters, but strange to relate her abdomen seemed to increase in size. The mare had now been in the stable about five weeks, and had daily exercise when circumstances would permit. The temperature would be very erratic—one day normal, another day 102, 103, 104, or even 105°, and then down again to normal. The prolonged illness, want of appetite, wasting of flesh, occasional subacute abdominal pains, and, later, erratic temperature and enlargement of the abdomen, caused me to suspect that I had a case of tuberculosis to deal with, and so I procured some tuberculin. On three different occasions when I visited in the morning I found the temperature below 103°, but to my disappointment on visiting in the evening for the purpose of injecting the tuberculin the temperature had risen on each occasion to 104 or 105°. I therefore abandoned the idea, but felt convinced that I had at last discovered the probable cause of what up to now had been a source of great anxiety and worry.

I communicated my suspicions to the horse superintendent of the company, who is a veterinary surgeon, and asked his instructions. Two days later he saw the animal himself, and admitted it to be a suspicious case of tubercle. He gave me instructions to write out a certificate condemning the mare as incurable, and taking into consideration the fact that she had been working for nearly eight years her loss was not a great one to the company. The certificate was written out and posted on August 26th, and strange to say the mare was found dead in her stall on the morning of August 28th.

A post-mortem examination revealed no trace of tubercle, but a rupture of the small bowel, and a huge clinker-like calculus firmly embedded in the mucous membrane of the floating colon. The calculus weighed 7lb. and measured in circumference 2ft. 2in. The double colon was enormously distended with ingesta.

In conclusion, I would recall that beyond the torpid condition of the bowels there never was, at any time during the prolonged illness, actual stoppage of the bowels such as would lead one to suspect calculus.

The PRESIDENT moved a vote of thanks to the members who had submitted specimens and given histories of interesting cases. This was seconded by Mr. Wolstenholme and adopted.

#### SOUTHERN COUNTIES VETERINARY SOCIETY.

The autumn meeting was held at the County Hotel, Salisbury, on Wednesday, the 25th September, and although the attendance was not quite so large as usual, the proceedings were rendered specially interesting by the Presidential Address of Mr. W. Hunting, which had been postponed from the previous meeting. Supporting the President in the Chair were Messrs. A. H. Archer, Southsea; E. R. Harding, Salisbury; C. Pack, Lymington; C. Roberts, Tunbridge Wells; and J. Alex. Todd, Worthing, hon. sec.; while the visitors included Col. L. J. Blenkinsop (the P.V.O. of the Southern Command), and Lieut. R. Ferguson, A.V.S., Stirling.

On the proposition of Mr. Archer, seconded by Mr. Pack, the minutes of the previous meeting, as published in *The Veterinary Record*, were taken as read and confirmed.

Apologies and expressions of regret at inability to be present were announced from Prof. Hobday, Prof.

Wooldridge, Messrs. R. Burt, W. Burt, Jun., G. W. Bloxsome, W. Caudwell, W. A. Della Gana, H. Haywood Jeffries, J. Cecil Munby, J. B. Martin, Harold Leeney, P. Perkins, R. Roberts, F. G. Samson, C. H. Spurgeon, S. H. Slocock, P. J. Simpson, C. Sheather, H. Smith, W. K. Stuart, W. Shipley, Theo. C. Toope, F. T. Walder, R. A. Thrall, and D. Wyllie.

The HON. SEC. submitted a letter from Mr. Theo. C. Toope, the hon. sec. of the South Eastern V.A. with reference to the discussion which took place at the last meeting of that Society on the question of insurance fees and suggesting the appointment of a Sub-committee of the two Societies to discuss the matter from a common point of view; but it was eventually decided to let this matter stand over till the next meeting in the hope that Mr. W. A. Della Gana will then be able to read his promised paper on the subject of Veterinary Surgeons and Insurance Companies.

In another letter, acknowledging a letter from Mr. Todd on the subject of the fees paid to veterinary inspectors, Mr. Theo. C. Toope had written suggesting that it would be a good thing if a generally approved scale of fees could be promulgated, and stating that he intended bringing this forward as a minor subject at the meeting of the National this year.

The PRESIDENT: He brought it forward, and we carried a resolution to the effect that the subject should be considered at the next Council meeting of the National, but that body has not met since then.

The HON. SEC. reported the death of Mr. J. G. Tait, of Christchurch, which had occurred suddenly at Newcastle, adding that Mr. Tait was only elected a member of their Society in July last. On the proposition of Mr. C. Roberts, seconded by Mr. Pack, and supported by Mr. Archer, a resolution of sympathy and condolence with the widow was unanimously agreed to.

On the proposition of Mr. Archer, seconded by Mr. Roberts, it was decided that the next meeting of the Society should be held in London during the Cattle Show week, and that it should be followed by a dinner as in previous years.

#### ROYAL SANITARY INSTITUTE CONGRESS, YORK, 1912.

Report by A. H. ARCHER, M.R.C.V.S., (delegate.)

When you did me the honour of electing me as your representative to attend the R.S.I. Congress at York I accepted the position with a full appreciation of the responsibility thus placed upon me, and a determination to fulfil such obligations to the best of my ability.

In making this report I do not purpose relating the conduct of the proceedings in general, but to pick out the items and circumstances which, in my opinion, have a direct bearing in one way or another, on the interests of our own profession, and from which we may learn something worthy of our earnest consideration.

Some expressions of disappointment were manifest when the Veterinary Section was taken on the last day of the Congress, especially as this was the Saturday immediately preceding the August Bank Holiday, and many were therefore unable to attend who otherwise would have done so, while the time allotted to the proceedings was curtailed to something less than three hours.

Notwithstanding these circumstances, the discussions were well sustained and evoked interest in a considerable number of persons representing other sections, indeed there were more present at this Conference of Veterinary Inspectors than I had, under such disadvantageous conditions, expected to see.

Reviewing the whole proceedings, one of the chief impressions forced upon my mind was the paucity of the members of the veterinary profession taking part in the

Congress compared with the numbers in other departments, which were directly or indirectly concerned, and I think it a great pity that more veterinary societies did not send delegates, and especially that there was no special representation of the Royal College of Veterinary Surgeons at a Congress which undoubtedly affords a unique opportunity of forwarding the interests and promoting the status of our profession, and I sincerely trust that this state of affairs will be remedied in the future, as, judging from my personal experience, members of the veterinary profession taking part in discussions on papers by other sections receive a hearty welcome, and their remarks are listened to with interest and appreciation.

The tuberculous question was the main subject of debate, in some form, in nearly all departments. Statistics formed no mean part of the general proceedings, being the chief theme in Prof. Karl Pearson's lecture on "Eugenics and Public Health," and was the subject of a paper entitled "Modern Statistical Methods," by John Brownlee, M.D., Physician Superintendent, City of Glasgow Fever Hospital. After hearing the lecture, reading the paper, and listening to the debate, one could not fail to be impressed with the great danger there is in relying on mere figures, even when dealt with by an accomplished mathematician, to prove a point with unquestionable integrity, when all collateral conditions and circumstances that in any way bear on the matter in question, are not carefully and comprehensively taken into account.

The Inaugural Address by His Grace the Lord Archbishop of York, impressed everyone who heard it, showing, as it did, what an extensive, practical, and common-sense knowledge His Grace has of the whole of the matters that were discussed, and he struck the keynote of the whole matter when, in effect, he said this; "what is necessary for the successful carrying out of any scheme evolved by the deliberations of that Congress is the willing co-operation of all parties concerned to do their duty faithfully in the interests of the matter undertaken."

One other point struck me as being somewhat prominently in evidence, viz., the amount of comparative ignorance displayed by many of the speakers on veterinary matters, and the important bearing these have on the health of the community.

The general arrangements for the visitors were excellent, and their entertainment munificent. The visit to Messrs. Rowntree's works being, in addition, instructive from the point of view of sanitary organisation. Special subjects which deserve careful consideration and intelligent discussion are, statistics, as applied to prove any system or form of dealing with the cure or prevention of disease.

Professor Karl Pearson, in his lecture on "Eugenics and Public Health," showed how, when it was endeavoured to prove a point by the application of purely mathematical arguments without taking into due account the collateral and other influencing circumstances, a conclusion would be arrived at, which is altogether reversed when all such conditions are taken into account. Thus by a set of mere figures it could be apparently shown that one-room tenements were more healthy than houses containing more rooms, and that it was more healthy for women to go to work in factories, etc., up to the time of, and very soon after, the birth of a child, than for them to refrain from so doing, but that such figures are really very misleading, as the reason why there is proportionately less disease in persons inhabiting one room than in those occupying two or more rooms is because the former are occupied in the majority of cases by single, or only recently married, persons, whereas families required two or more rooms, and as these consist more or less of children who are more liable to disease than grown-up persons, there was

a greater proportion, numerically, of diseased persons in the two roomed house.

Professor Karl Pearson made a strong point of insisting that "no amount of fresh air during the day compensates for breathing impure air at night," consequently it is imperative for a person to keep as healthy as possible, that he or she should sleep with an abundance of ventilation in the room, and to prove this he instanced the case of the lifeboat heroine "Grace Darling," whose habitat he had himself visited and inspected, and the monument to whom he showed on a lantern slide.

Grace Darling died of consumption at the age of twenty-six, notwithstanding the active outdoor life she led under conditions which are generally accepted as being most favourable to protection from tuberculous disease; her bedroom was, however, very small, and only lighted by the usual slit-like aperture in the light-house wall, and to this fact the lecturer attributed her early decease from this disease.

On deliberate consideration of the foregoing, the impression forced upon me that, everything considered, this "stock illustration," as the Professor admitted it to be, fails to prove the very point it is intended to do, for the following reasons:—The admittance of air, even in the heart of a town, by a partially open window into a sleeping apartment occupied by two or more persons is considered sufficient to act as a fairly reliable safeguard against the contraction of tuberculous disease, other circumstances being favourable in this same direction.

Now it may fairly be assumed that Grace Darling's bedroom door did not close with exactitude, and even if the "window" was hermetically sealed, which, by-the-by, the Professor did not mention as being the case, it is only reasonable to conclude that in such an exposed situation as that where Grace Darling lived there would be quite a good supply of absolutely fresh, pure air gaining admittance to her chamber through the crevices between the door and door frame, even if she always slept with the door closed, which there was no evidence given to show that she did, and as she was the solitary occupant of the bedroom she would get far more fresh air than immense numbers of persons sleeping in rooms containing two or more occupants in towns. I mention these impressions not in any way to detract from the value of breathing pure air during sleep, but solely for the purpose of showing how misleading conclusions may be when based on the foundation of mere statistics or isolated cases.

A paper on "The Municipal Dispensary and Tuberculin Treatment," by A. Mearns Fraser, M.D., M.O.H., Portsmouth, and Hilda Clark, M.B., B.S. (Lond.), tended to show the value of such institutions in the treatment of tuberculosis, and it occurred to me what a great pity it is that such worthy efforts are not assisted by proper veterinary inspection of the milk cows from which Portsmouth gets the supply of milk, and the meat brought into the town for human consumption.

Other papers and discussions which are in my opinion of special interest to the veterinary profession and deserve some consideration by us, are "The Public Health Aspects of Poliomyelitis," by Reginald Farrar, M.D., D.P.H. (Local Government Board), in which attention was called to the occurrence of symptoms simulating this disease in affections attacking the lower animals. "The Necessity for the Compulsory Abolition of Public Slaughterhouses in Towns by Act of Parliament," by Councillor J. M. Hogge, M.A., M.P., York; "Prevention of Woolsorter's Disease," by Prof. F. W. Enrich, Bradford; "Inspection of Meat and other Foods," by J. C. Dawes, Keighley; "Enteric Fever Carriers," by Captain A. H. Hayes, M.R.C.S., D.P.H., R.A.M.C., York; "Theory of Probable Error in its application to Vital Statistics," by John Brownlee, M.D., D.Sc.,

Glasgow. This latter is important and interesting for the reason that it in its fundamental principle, is in opposition to the system adopted by Professor Karl Pearson, the vital difference appearing to be the relative bearing mere chance exercises in the computation of statistical results.

All the papers and discussions in Conference IV., Veterinary Inspectors, are, or should be, interesting to every member of the veterinary branch of the medical profession, I use this term advisedly because, although some of our own members I regret to say almost ignore the fact, or think lightly of it, that we do in reality belong to the medical profession, and it is at such meetings as the R.S.I. Congress that it is most important that our professional status be maintained and promoted.

"The Eradication of the Tuberculous Milch Cow," by Percy J. Simpson, F.R.C.V.S., afforded great scope for comment and discussion, and it was in discussing this subject that I advocated, I may say after much previous thought and deliberation, the establishment by local authorities or County Councils of isolation farms or "sanatoria," which I see has received some attention by the daily press.

"Foot and Mouth Disease," by D. George Collins, Chairman, City of London Cattle Markets Committee, beyond offering an opportunity for expressions of opinion as to whether or not the restrictions re importation and exportation of stock, are in all cases necessary or expedient, did not evoke much discussion.

Professor J. Basil Buxton, M.R.C.V.S., Edinburgh, was unavoidably absent, so that his paper on "Milk in Relation to Disease" did not receive the attention it merited except in the summing up remarks of the President (Prof. Dewar) who made a statement to the effect that, in his opinion, milk played but a small part in the transmission of tuberculosis, supporting his contention by an experiment that was carried out with a view of ascertaining some facts in connection with this matter. If I understand the Professor rightly, 60 calves were allowed to suck clinically tuberculous cows from birth until they were weaned. These 60 calves were subjected to the tuberculin test when twelve months old, and only one animal reacted, thus showing, to Prof. Dewar's apparent satisfaction, that tuberculosis is but rarely conveyed from cows to human beings through the medium of milk, as calves would be much more susceptible than human beings to contract bovine tuberculosis. Whether the deductions arrived at by Prof. Dewar will bear the test of close scrutiny is, to my mind, somewhat doubtful, and even if the results as stated give a reliable indication of what actually occurs, assuming that human infection from a bovine source is three times as rare as bovine infection from a bovine source, does not the occurrence of one case of human infection in every 200 chances warrant, nay demand, that every precaution be taken to prevent such occurrences? Again, is it not possible, or even probable, that the test-case calves may have shown indications of the existence of tuberculosis if tested later in life, the cause of disease itself being present in a dormant state all along? Do calves exposed to sources of infection other than that of sucking milk from tuberculous dams, readily contract and give evidence of the existence of the disease by the time they attain the age of one year?

Very few persons, so far as I am aware, insist that milk, taken from the udder, even of tuberculous cows, without any external means of contamination, is very potent in causing tuberculosis, unless the udder is itself affected, and bacilli are present in considerable numbers in the milk.

Lastly, is there not a possibility, however remote, of a human being, under certain conditions of environment, general treatment, and inherited susceptibility, of con-

tracting tuberculosis from a bovine source, as easily as a calf placed under favourable conditions for resistance, would contract the disease from a similar source?

With regard to my own paper, "Notification of Death of the lower Domesticated Animals," I will say but little, beyond that it was a feeble attempt to bring into notice a system which, I believe, in principle at least, is necessarily inseparable from an effective and economic system of preventing the conveyance of diseases from animals to man, and this, coupled with the establishment of Sanatoria or Hospital Farms, would go a long way in solving the problem how best to prevent the spread of disease from one animal to another, and from animals to human beings. Only in the "Veterinary Inspectors'" section was, so far as I could learn, any "resolution" passed, the one asking that the Board of Agriculture should re-establish the "Tuberculous Disease Order, 1909," with the additional proviso that "the compensation for cattle destroyed be wholly paid by the Imperial Exchequer. This was opposed by Mr. Collins and myself, as being likely, by the addition of the latter clause, to wreck what small chance the resolution had of receiving effectual notice by the "powers that be," beside which, it appeared to me inconsistent, that a resolution from a Sanitary Congress should contain any stipulation of a monetary character. It struck me as being a great drawback to free discussion that frequently wrong motives are attributed and distortions of the meaning of expressions used either in papers or debate are employed by speakers who follow in the discussion. Nowhere, so far as my experience went, was this so evident as in the "Veterinary Inspectors'" Section. My own paper was, by one speaker, assumed to apply *only* to Anthrax, and this gentleman remarked that "the writer of the paper must be very much behind the times not to know that compulsory notification of the existence of this disease already exists."

Another remark, I regret to say made by the President, was to the effect that Mr. Collins and I, by voting against the resolution as worded, re the 1909 Order, were voting against the interests of stockowners and local authorities, whereas quite the reverse was the case, we opposing the resolution because the additional wording "that all compensation be paid by the Imperial Exchequer," jeopardised the resolution, and, in our estimation, made it ridiculous, although we quite approved of the re-introduction of the "Order" itself if it could be obtained.

In conclusion, I think it eminently advisable that the veterinary profession be better represented at future Congresses, by delegates from more Societies, and that such representatives organise at the early part of the meeting, so that one or more can be present in each section, where matters associated with the interests of the veterinary profession are being discussed.

As is known to many of you, there are often such matters under discussion in two or more sections at the same time, consequently, if only two or three attend the Congress, the chances are that several items of interest will not be attended by a member of the veterinary profession, and the impression conveyed by such absence is that we do not appreciate what, for our own benefit, we should make a point of showing interest in.

One last point I suggest is, that any speaker criticising another's speech should, especially if he or she be of the same profession, be careful not to misinterpret or misquote what the other has said, and reason on the thus distorted passages.

By the non-observance of this, I was quoted as implying, in my remarks re the establishment of "isolation farms" for tuberculous cows, that I recommended the sale of meat known to be tuberculous, for human consumption, whereas, what I actually did say was, that a considerable amount of flesh from animals that would react to the "tuberculin test," but show no other signs out-

wardly of being affected, could, if it were found after slaughter that the tuberculous lesions were localised, after inspection, be used for human food, and the milk from tuberculous cows could be sterilised and used for calf-rearing, pig feeding, etc.

This report, as will be readily noticed, does not reiterate to any extent what can be read in print, or pretend to be a *resumé* of the doings connected with the Congress, but it contains expressions of my own experiences, convictions, and impressions, concerning the Royal Sanitary Institute Congress at York, 1912.

Mr. Archer added that since he had compiled this report he had received an invitation to become a member of the Sanitary Institute, and that he had accepted that invitation, partly perhaps owing to a little personal vanity, but also because he felt that by doing so he would be able to further the interests of his own profession. He would also like to suggest that at future Conferences of this kind those who were representing Veterinary Societies should try and make themselves known to each other as soon as they got there. He was a stranger at York, and consequently he did not meet any of his brother practitioners until the last day. He attended some of the meetings of the other sections which he thought were likely to be of interest to and benefit their profession, and he also spoke at one or two, his remarks having a very good reception.

Mr. Tonn proposed that they accord Mr. Archer a hearty vote of thanks for his interesting and exhaustive report.

Mr. Pack seconded this, and said the report showed that Mr. Archer had evidently taken very great interest, not only in preparing the report, but also in representing their Society while he was at York. It was a far more elaborate report than he had seen from delegates for a long time now, and he was sure it deserved their very best thanks.

The proposition was carried, and Mr. Archer made a brief acknowledgment.

The PRESIDENT gave his address, which appeared in our issue of October 12th, p. 217, *et seq.*

#### "SOME THOUGHTS ON OUR PAST AND PRESENT"

Address by W. HUNTING, F.R.C.V.S.

#### DISCUSSION.

Colonel Blenkinsop said that as the President had asked them to discuss the address, he ventured to make one or two observations.

Mr. Hunting said the Army Veterinary Officer did not require to know very much about cattle.

The PRESIDENT: I do not think I quite said that.

Colonel BLENKINSOP: Very nearly, I think. Continuing, Colonel Blenkinsop said: He could not agree, as it was essential that an officer of the Army Veterinary Corps should have a very intimate knowledge of the diseases of cattle. The agricultural wealth of a country was a great asset, and the agricultural animals during war had to be safe-guarded in order that when peace was declared, they might be available to feed the inhabitants and to produce money to pay the indemnity which is imposed on a conquered country.

There is a great difference between taking over a country denuded of stock and one in which animals are plentiful. Veterinary officers had in war to take over, as one of their duties, the task of safe guarding the cattle and sheep to ensure these against being wiped out by disease. This was very forcibly brought before every Veterinary officer who served in the South African war.

In India and the Soudan the Army Veterinary officer was constantly being called upon to deal with disease in cattle. At the present moment the practitioners who had the most accurate clinical knowledge of foot and



mouth disease were to be found in the A.V. Corps. Few other British veterinary surgeons had ever had the opportunity of treating this disease.

He was in agreement with Mr. Hunting that graduates must specialise after they obtained their diplomas, but he also considered that, if full value was to be obtained from the teaching at our schools, the students must be men with a liberal general education, and he doubted if, at present, we had reached the standard we required. It was true we had the same Entrance examination as the medical profession, but the standard of general education amongst medical students was far higher than that found amongst students at our Colleges.

He considered that our schools could do a great deal by training men to report cases. This would help them in after life in writing reports. He had had an extensive experience of young veterinary graduates, and found very few able to write a lucid report. It was most important that they should be able to place their views before the public in an educated manner, for opinions illiterately expressed carry very little weight.

He congratulated Mr. Hunting on his most valuable presidential address. Mr. Hunting in the past fifty years had done much for the profession, and we owed him a deep debt of gratitude. His paper, *The Veterinary Record*, had done probably more than any other periodical to keep the general veterinary practitioner up to date, but there was just one thing he would like to see stopped, and that was the publication of letters to which writers had not the courage to sign their names. He hoped Mr. Hunting would forgive him when he said that he thought a man should have the courage of his opinions on scientific subjects and write openly. If he did not sign his name his communication should find its way into the waste paper basket.

The PRESIDENT: I very much agree with you there myself, but it is not an easy matter to alter.

Colonel BLENKINSOP: Don't publish the letters.

The PRESIDENT: You know what will happen then. That chap will never send you anything else.

Colonel BLENKINSOP: And you don't want him to do so.

The PRESIDENT: Not some of them, perhaps. My excuse has always been that it is best not to quench the smoking flax, and there is the possibility that a man will do better later.

Mr. ROBERTS had much pleasure in rising to propose a hearty vote of thanks to Mr. Hunting for his Presidential address. He was very glad indeed, and he was sure they would all be, that they asked Mr. Hunting to take on the Presidency for a second year, because, if he had not done so, the very interesting address he had given them that afternoon might have been lost to them and to the profession generally.

Mr. PACK seconded. Mr. Hunting had invited them to discuss his address, but it was rather difficult to discuss an address which contained so much material, and in which there was so much with which they were in agreement. They all admitted that the veterinary profession had made vast strides in the last fifty years. With regard to the question of education which Colonel Blenkinsop had brought forward, it seemed to him that a great many men entered their profession not so much because they were fitted for it but from love for the work, and it mattered a very great deal what sphere a man went into after he got his diploma. There was no doubt that education was one of the greatest assets they had when properly applied, but there were a great many people in the country, farmers and others, who said their labourers were no better men now they were better educated than they used to be in the olden days. They did not get anything like the work out of them that they used to. Education was not altogether an unmixed

blessing. He should be very sorry to see it thrown back, but it was a question whether all the highly educated men made the best practitioners.

The proposition to accord a hearty vote of thanks to Mr. Hunting for his address was unanimously agreed to.

The PRESIDENT said he was very much obliged to them. He regretted they had not had a little more talk about some of the matters he had dealt with, because there were points which he thought it would do them good to interchange opinions on. When he wrote the reference to the Army men, the work that the Army veterinary surgeon had done in India did occur to him, and as soon as he saw Colonel Blenkinsop in that room he felt sure his paper would be tackled by him. He did not think about South Africa, although he readily acknowledged it. What he really meant to point out was that the education given at College, although deficient in teaching a man cattle practice, could not very well be altered, and that there was no particular reason why much cattle surgery should be gone into there; and he illustrated this by a reference to the Army veterinary surgeon or the men who were going in for a hunting practice who might specialise after they had got their diploma. He quite recognised the valuable work which the Army veterinary surgeon did in looking after cattle and preventing the spread of disease, but he also said that it seemed practically impossible for any school to teach cattle medicine as it ought to be taught. The whole question of education was a very wide one. Some one had said "define your terms before you begin to argue," and if they were to define their meaning of the term education, they would find a lot of the difference of opinion would disappear. One man might use the term as meaning the amount of knowledge a fellow absorbed at school, while another might use the term in a very different sense. Education did not mean merely what a person was able to pick up at school or college, but it ought to mean the training of a man to think, and see, and observe, and that was not always an easy thing to do. There were some men they could not train, and they had a few of these in the veterinary profession. Every calling had a number of them, and they were not at all singular in this respect. He had had something to do with other students—men of quite as good a position socially as the veterinary surgeons, and they had written their papers and expressed themselves quite as badly as any of the aspirants for the veterinary diploma. Report writing was a very severe test, and it meant something more than an ordinary education. Report writing required practice, and he thought some little special training as well. Years ago, when Professor Axe was the principal veterinary officer for the County of Surrey, he used to say that he hardly ever found a veterinary surgeon who could write a decent report, and that in the majority of cases he got a better report from the police constables than he got from his veterinary inspectors. He did not know whether there was any teaching of report writing, but there ought to be, because if a man could write out a decent report he could generally write a decent letter, and the ability to be able to write an intelligent letter must be of great advantage when writing to a client.

Colonel BLENKINSOP added that his point was that the writing of case reports in their colleges was not carried out to the same extent as it was in the hospitals, and that the veterinary surgeon lost a great deal in consequence.

The PRESIDENT: I am afraid in the majority of our schools there is no case reporting.

Mr. PACK asked Colonel Blenkinsop if he found his own men improve with the practice they got during their probationary period.

Colonel BLENKINSOP. You can teach report writing

if there is sufficient general education. All my own officers have to write their cases up, and there is no doubt they are taught in that way.

The PRESIDENT: I believe most of the Civil Service Examinations includes précis writing, and that is about the best practice you can get for writing reports; give a man twenty pages and let him reduce it to three.

Mr. ARCHER mentioned one or two instances which had occurred at the recent Sanitary Institute Congress, as showing that the lack of ordinary education was by no means confined to their own profession.

The passing, on the proposition of Mr. PACK, seconded by Mr. HARDING, of the customary compliment to the President for presiding then brought the proceedings to a close, the members being subsequently entertained to tea Mr. Hunting.

J. ALEX. TODD, Hon. Secretary.

#### CENTRAL VETERINARY SOCIETY.

The Annual General Meeting was held at 10 Red Lion Square, W.C., on Thursday, Oct. 3rd, Mr. R. J. Foreman, President, occupied the chair, and the following Fellows signed the attendance book: Messrs. J. Willett, B. Gorton, A. Crabb, Wm. Hunting, Profs. J. Macqueen and G. H. Wooldridge, G. H. Livesey, F. C. Mahon, J. W. McIntosh, Ralph Bennett, J. A. Gosling, H. D. Jones, A. Rogerson, Sidney Villar, S. H. Slocock, and Hugh A. MacCormack, Hon. Sec.

On the motion of Mr. J. Willett, seconded by Mr. J. A. Gosling, the Minutes of the last Annual General Meeting were taken as read and confirmed.

*Correspondence*.—Letters regretting inability to be present were announced from Colonel L. J. Blenkinsop, Mr. W. Shipley, Mr. J. C. Coleman, Mr. J. J. Kelly, and Mr. E. Lionel Stroud.

A letter was also read from a Mr. Greathead, enclosing a pamphlet.

On the proposition of Mr. J. W. McIntosh, seconded by Mr. J. Willett, it was decided to let the communication lie on the table.

*Nomination*.—Vet.-Capt. GRAHAM REES MOGG, First Life Guards, was nominated for ballot at the next meeting.

#### ANNUAL REPORT AND BALANCE SHEET.

The following Report was read by the Hon. Secretary:—

Mr. President and Gentlemen,—The Council has pleasure in announcing that the Session 1911-12 has been a most successful one. Thirteen Fellows have been elected and five have resigned. The Annual Meeting was held in October, at which Mr. R. J. Foreman was unanimously elected President. Ten ordinary and two Council Meetings have been held, with an average attendance of 35 at the ordinary meetings.

In November the Annual Dinner was held at the Holborn Restaurant, at which 83 were present. For the first time in our history ladies were present at an Annual Dinner; we need hardly say their presence enhanced the proceedings very much, and we hope the custom will continue.

At the December meeting the President gave the customary address.

We have to thank the following gentlemen for reading papers, introducing improved instruments, and bringing forward motions during the Session:—Prof. G. H. Wooldridge, Botriomycosis; Vet.-Captain C. H. H. Jolliffe, Pseudo-Tetanus or Muscle Fatigue, Toxæmia (?); Mr. J. Willett, Motion.—To discuss the unfair treatment meted out to our profession when giving expert evidence in Police Courts; Mr. Guy Sutton, Some Effusions and Transudes commonly met with; Mr. A. W. Noel Pillers, An improved method in the treatment of

Canker in the foot; Mr. H. Gray, Communication re the Royal Veterinary College; Mr. R. F. Wall, Communication re War Office Regulations.

Two meetings were devoted to impromptu discussions.

In reference to Mr. Willett's motion, the subject was thoroughly discussed, a Committee composed of the President, Profs. Macqueen and Wooldridge, Vet.-Capt. C. H. H. Jolliffe, Messrs. W. Hunting, J. Willett, J. W. McIntosh, D. Stewart, H. G. Simpson and the Hon. Secretary was elected, and they held numerous meetings.

Deputations waited on the Royal Society for the Prevention of Cruelty to Animals and the Chief of the Metropolitan Police; the reports have been published in the Veterinary Journals. A deputation also waited on the War Office.

Mr. A. L. Butters delivered his report of the Royal Sanitary Institute Congress at Belfast, also Mr. J. J. Kelly his report of the Public Health Congress held at Dublin, both of which have been published.

Mr. R. J. Foreman was appointed to represent the Society at the Royal Sanitary Institute Congress at York, and his report will be given in due course.

As you are aware, the amalgamation of the different Veterinary Societies with the National Veterinary Association is an accomplished fact, and will be in working order during the Session.

Your Council are pleased to note the increased number of interesting and instructive specimens brought forward at the meetings, and they hope Fellows will continue doing so. We beg to thank the following Fellows: Professor Wooldridge, Messrs. Wood, Eaglesham, Foreman, Jones, Stewart, Bennett, Perryman, Lucking, and Macdonald.

The balance brought forward and receipts for the year amounted £139 0 2, and the expenses to £86 8 9, leaving a balance of £52 11 5, which the Council consider very satisfactory.

In the absence of Mr. E. Lionel Stroud (the Treasurer), the balance sheet was presented by the Hon. Secretary.

On the motion of Mr. J. Willett, seconded by Prof. Wooldridge, the Report and Balance Sheet were adopted.

#### ELECTION OF OFFICERS AND COUNCIL.

*President*.—The PRESIDENT proposed Mr. J. W. McIntosh as President for the ensuing year. Mr. McIntosh, he said, had been an enthusiastic worker on behalf of the Society, and had given a great deal of time to promoting the interests of the Society and the profession in general, especially during the past session.

Mr. J. WILLETT seconded the motion, and there being no other nominations Mr. McIntosh was unanimously elected.

Mr. FOREMAN then vacated the Chair, which was taken by the new President, who thanked the Fellows for the honour conferred upon him, and declared he would do his best to carry out the duties of the office to the best of his ability.

*Vice-Presidents*.—The following Fellows were elected as Vice-Presidents: Mr. R. J. Foreman, Mr. G. H. Livesey, Prof. Wooldridge and Mr. Sidney Villar.

*Council*.—The following were elected as Council for the year: Messrs. W. Perryman, S. H. Slocock, W. Hunting, T. Salusbury Price, A. Rogerson, W. L. Harrison, J. Willett, Prof. J. Macqueen, H. D. Jones, A. L. Butters, J. Rowe, and J. A. Gosling.

*Hon. Treasurer*.—Mr. R. J. FOREMAN said that as one who had worked with Mr. Lionel Stroud during the past year, and therefore knew something of Mr. Stroud's work, he had great pleasure in proposing Mr. Stroud's re-election as Honorary Treasurer.

Mr. A. ROGERSON seconded the motion, which was carried unanimously.

*Hon. Secretary*.—The PRESIDENT, in proposing the re-election of Mr. Hugh MacCormack as Hon. Secretary, said the Society had an excellent officer in Mr.



MacCormack, who had devoted an enormous amount of energy and time to the work.

Mr. FOREMAN seconded the motion, remarking that if the President was his deadliest enemy he could not do him a worse turn than deprive him of Mr. MacCormack's services during the year of his Presidency.

The motion was carried with unanimity.

Mr. MACCORMACK briefly thanked the Fellows for his re-election.

*Hon. Auditors.*—Mr. W. L. Harrison and Mr. Roger Clarke were elected as Auditors.

#### ANNUAL DINNER.

The following gentlemen were elected as the Dinner Committee: Messrs. Hunting, Rogerson, J. Willett, and the officers of the Society. Owing to the success attendant upon the Dinner last year being made open to ladies, the President suggested that they should be invited again; it was agreed unanimously that the precedent should be followed this year, and the Secretary was instructed to notify the Fellows that ladies would be welcomed at the Dinner to be held in November next.

HUGH A. MACCORMACK, *Hon. Sec.*

#### VETERINARY ASSOCIATION OF NEW SOUTH WALES.

At the monthly meeting held on Monday, Sept. 2nd, Mr. S. T. D. Symons occupying the chair, Mr. H. B. Woods, of Inverell, was elected an associate member.

A long discussion took place in connection with the suggested amendments of the Veterinary Surgeons Bill, and the matter was again referred to the Council for such action as might be deemed necessary.

It was decided to request Prof. Stewart to act as a delegate from the Association at the forthcoming meeting of the Australasian Association for the Advancement of Science.

Post-mortem specimens of salivary calculus and specimens of the cannon bones of a horse which had grown round pieces of wire fencing were exhibited by Mr. Miller, and an excised tubercular gland and a neoplasm from the shoulder region of a mare, by the Secretary on behalf of Mr. Woods.

A discussion on Mr. Baker's paper on the "Lymphatic system" closed the meeting.

MAX HENRY, *Hon. Sec.*

#### Illegal Seizure of Mutton.

At Wellingborough Police Court on Tuesday, 8th inst., John Thomas James, butcher, of High Street South, Rushden, sued the Rushden Urban District Council and Mr. G. S. Mason, the Clerk to that authority. The plaintiff claimed under Section 308 of the Public Health Act, 1875, the sum of £19 10, being damages sustained by plaintiff for wrongful seizure on the 6th day of March, 1912, by defendants from the plaintiff of the carcass of a sheep belonging to plaintiff, and destroying the same.

Mr. W. Clarke Hall (instructed by Messrs. Heygate & James) was counsel for the plaintiff, and Mr. Ernest Charles (instructed by Mr. G. S. Mason) for the defendants.

The body of the court was filled with quite a number of traders interested in the case. Mr. Walter Brazil, the Hon. Treasurer of the National Federation of Meat Traders, and Mr. W. Payne, the Secretary of the Federation, were in attendance. The Rushden Urban Council was represented by Mr. J. Claridge, J.P., C.C., Mr. G. Miller, C.C., and several of its officers. Mr. Walter

Chamberlain and Mr. J. Williams, members of the East Northants Butchers' Association, were present, together with other well-known meat purveyors.

Mr. Clarke Hall opened the proceedings by reading the section of the Act, and explained that the case had been so framed as to come within the latter part of the section, the claim being under £20. The case for the plaintiff was that he was entitled to damages, first of all with respect to the actual value of the carcass, and secondly, for all reasonable expenses that he had been put to in that matter. Mr. James carried on business as a butcher in Rushden, and in that business was assisted by his brother. On the 5th March Mr. James, one of the partners, went to see Mr. Cave, farmer, of Wymington, and asked him if he had some sheep to sell. Mr. Cave said he had, and showed him two of his sheep. They seemed to be fine and fat, and, after some discussion, James finally purchased two for the sum of £5 10. The sheep were brought to Mr. James's business premises, and on the following day Mr. Joseph James had one killed. Mr. James was in the act of cutting it up, having removed the skin, when the Inspector of the Rushden Urban Council came by. The Inspector stood by and watched the carcass being cut up. When the lungs and the liver were hung up on a hook the Inspector looked at them. The Inspector then said the lungs were diseased, and that it was obvious that the animal suffered from tuberculosis, and that the whole carcass should be destroyed. There was some discussion about this, and the pluck was taken away by the Inspector and brought to a Magistrate, and on the statement of Inspector he ordered whole carcass to be destroyed. The whole of the carcass was removed and eventually destroyed.

Before Mr. Knight gave the order for this to be actually destroyed, a portion of the lung had been taken to the Medical Officer (Dr. Morris), and as he (counsel) was instructed, the order had actually been made by Mr. Knight before he received the report of Dr. Morris. Dr. Morris did eventually send his certificate, which set forth that he had that day examined the sheep, and that it was suffering from miliary tuberculosis, and that the whole of the carcass should be destroyed. There was no question that if Dr. Morris's opinion was correct his order for destruction was perfectly right. Of course, if it could be contended that the carcass was affected, and that there was tuberculosis in it in an advanced stage, that it was likely to have permeated the carcass, that was a different matter, but the question was whether the medical officer was wrong in his diagnosis, and whether the animal was not suffering from an ailment of an entirely different character. Probably the Inspector of the Rushden District Council may not have had a very wide experience of tuberculosis, but he (counsel) would be able to prove beyond the shadow of a doubt that what this animal showed symptoms of was not miliary tuberculosis—and he was not going to suggest that the lungs were not diseased—they were, but were diseased with what was known as *strongylus rufescens*. The Bench would hear that that was a thing confined to the lungs, but it was entirely incapable of penetrating any part of the carcass except the lungs. The Inspector who had not had a wide experience might well be mistaken in the nodules he saw, but there was nothing in the carcass to indicate that the animal was suffering from miliary tuberculosis. The disease was entirely confined to the lungs. It was incommunicable in any form to human beings, and in no way affected the carcass, unless the disease had advanced to a very terrible state. If his facts were correct, it follows that if it was to be maintained that a local authority was justified in destroying all parts of a sheep that was suffering in this way, the meat trade of this country could not be carried on, because 70 per cent. at least of the carcasses would have to be seized. In that case the only way that butchers could protect themselves would be in buying and selling

foreign meat; for in the case of foreign meat no such question could arise, because no human being could tell without examining the sheep *when slaughtered*, or with the organs present, whether it was suffering from that disease or not.

Albert Cave, farmer, Wymington, said he had been carrying on business for the last seven years. He remembered Mr. James and his brother seeing him on the 5th of March. They were passing through one of his fields when Mr. James asked him if he had any sheep. He said he wanted fat sheep. Witness showed him two three-year-olds which had been turned out of the flock because they were not in lamb in February time. They were in pretty good condition and in very good order. He discussed the price with him, and finally agreed to take £5 10 for the pair. He thought it was a fair price. He did not know what the weight was. There was no sign of disease in either of the sheep, and he had never had any of his sheep condemned.

John Thomas James said he had been a butcher in High Street, Rushden, for some two years. Before that he was in business at Old Bradwell, and before then he was a journeyman butcher at Reading. He had had a good deal of experience in cutting up carcasses. On the 5th March he bought two sheep from the last witness, and they were brought the same day to his slaughterhouse. The next day one was killed, and his brother proceeded to cut it up. Witness was present when the sheep was killed, but not when the Inspector came. When witness returned he heard about the Inspector's first visit. He went about four o'clock to see the carcass, which had not then been removed. When he arrived the Inspector and the Magistrate, Mr. Knight, were just coming on the scene. Witness followed them in, and when he examined the carcass he only found a few spots on the lungs. The Inspector proceeded to cut something from the lungs and showed it to Mr. Knight, and said, "This is diseased." Mr. Knight said he was quite satisfied. The Inspector said nothing about the carcass. Mr. Knight asked witness where he got the sheep from, and witness told him. Mr. Knight said it was a beautiful sheep, and that it was a pity that it should be destroyed. Witness then communicated with Mr. Chamberlain, who was the representative of the local Butchers' Association at Wellingborough. Mr. Chamberlain came over about five o'clock, and together with witness he went and saw the Inspector. There was some conversation, and the Inspector told Mr. Chamberlain that the disease was tuberculosis. Then witness went to see Mr. Skinner, and came back with that gentleman. Witness also went and fetched Dr. Greenfield, and he also came. Witness next went to see the Inspector, and asked him that the carcass should not be destroyed until it had been seen by somebody else. Then Mr. Dykes, a Veterinary Surgeon, was called in. Mr. Dykes saw the carcass and took a piece of the lung. After he had separated a bit of it the Inspector demanded it back again. It was only small section, but the Inspector said he would fetch a policeman if Mr. Dykes did not give him it back.

Cross-examined: Witness saw signs of some disease on the lungs, and made no objection when Mr. Knight said the carcass would have to be destroyed. When Mr. Dykes examined it, Mr. Allen said if they were going to stop him doing his duty he should call in the police. After Mr. Dykes had examined the carcass witness made no objection. Witness and Mr. Skinner then fetched Dr. Greenfield to examine the carcass. The carcass had been examined by a medical man, experienced butchers, and a veterinary surgeon.

Joseph James, butcher, said he had been working with his brother for a good many years. Witness was with him when he bought the sheep. On the day after the sheep was bought witness was cutting up the animal when the Inspector came along. The Inspector first went by when he was killing the sheep, and then turned

back and stood in the slaughterhouse watching him. Witness spoke to him and said, "It is a nice sheep," and he replied, "Yes, it is." Witness cut up the carcass and took out the pluck and hung it up on a hook. The pluck consisted of the liver, lights, heart, and milt. When he hung the pluck up the Inspector said, "It doesn't look so red as it ought to." He then asked for a knife, and cut a part of the lungs. Witness got the lungs down for him, and he cut a portion. The Inspector then said the lungs were diseased. He went to the sheep and cut two glands out of the back, and said, "It is tubercle." Witness asked him what he had got to do, when the Inspector replied, "I am going to take it away now and destroy it." Witness asked if the carcass was not to be given up to him, when he said, "If you stop me in the execution of my duty, I shall take it to the furthest point."

Mr. J. Rowland Dykes, M.R.C.V.S., Veterinary Inspector to the Board of Agriculture, and also to the Northamptonshire County Council, said on the evening of March 6th he saw Mr. Walter Chamberlain, and he gave him information, and in consequence of that he went to Rushden, and at the slaughterhouse of Mr. James saw the carcass in question. Witness made a careful examination of the carcass and lungs, and also of the liver and kidneys. The carcass was perfectly normal in every particular. It was the carcass of a well-developed sheep, and there were no symptoms of any kind of disease. He also examined a section of the lungs. On the surface of the lungs was a series of nodules, parasitic in structure, known as strongylosis. These nodules were exceedingly common in sheep, say from 70 to 95 per cent. of the lungs examined. It was a disease which was affected by the weather, that is, it would be more prevalent in the period following a wet season. He saw one of the lymphatic glands of the sheep, but he could not say what part of the carcass it came from. He tried to take away a section of the lung, but when he attempted to do so the Inspector assumed a rather insolent attitude. Witness was threatened with immediate arrest, and the whole majesty of the law was dangled in front of him. The glands were perfectly normal in every particular. Sheep might, he thought, be considered naturally immune to tuberculosis.

Cross-examined: There is no close similarity between the naked eye appearance of the nodules of the strongylus rufescens and the tubercles of tuberculosis. The naked eye appearances alone ought to indicate the difference. The extreme rarity of the disease in sheep ought to have put the inspector on his guard against the presence of tuberculosis.

Wm. Ewart Hall, Sanitary Inspector for the Wellingborough Urban Council, who attended the Court on subpoena, said he held a certificate as Inspector of Meat under the Royal Sanitary Institute, and he had had considerable experience in meat inspection. On the 7th of March he went to Rushden. He went there in a trap with Mr. Allen, of Rushden, and at his request. He first went to the Inspector's office, and there saw Mr. Chamberlain and Prof. Woodruff. Mr. Allen took witness to see the carcass in question. It was hung up in his office at the time, and witness examined both the carcass and the various organs. With regard to the lungs, he found them affected with strongylus rufescens. He had no doubt about it. The prevalence of the disease varied with the district. The minimum, he thought, would be 70 per cent. It was not the practice to order condemnation of sheep suffering from it, and if that was done there would be very few sheep that would be free. The carcass he saw on the 7th March was quite normal, and he saw no reason why it should not be used for human food. He told Mr. Allen that he had made a mistake in his diagnosis. Witness afterwards cut up the carcass in order to be in a better position to judge. The cutting up fully confirmed the

opinion he had formed that it was a perfectly healthy carcass. The glands were perfectly normal.

Cross-examined: He and Mr. Allen had seen something of one another. He did not think he had communicated with Mr. Allen and asked him to take notice of certain meat going out of his district into Mr. Allen's. They might have had some conversation, but he did not think any particular name was mentioned. They met quite casually in Wellingborough. On the day that Mr. Allen drove in, he came to witness's house and had a talk about the meat that he had ordered to be destroyed. Witness volunteered to go over and have a look at the meat, after Mr. Allen had explained his position. When he got there he saw signs of strongylus. He saw no signs of yellow deposit in the lungs when he got there. The glands were quite normal. The lungs were not loaded all through with a hard deposit. He did not tell Mr. Allen that he had done perfectly right, but told him that he had made a mistake. He did not remember any discussion about a yellow deposit.

Prof. Harold Addison Woodruff, M.R.C.V.S., M.R.C.S., L.R.C.P., Professor of Veterinary Medicine and Lecturer on Meat Inspection at the Royal Veterinary College, London, and Examiner of the Royal Sanitary Institute, said most of the meat inspectors came under the Board of which he was a member. At the request of the Secretary of the National Federation of Meat Traders, he came down to Wellingborough on March 7th, and with the local Secretary (Mr. Chamberlain) went to Rushden for the purpose of examining and reporting on the carcass which had been seized. Before seeing the Inspector witness was informed that Mr. Allen had gone to Wellingborough to get some expert assistance. The Inspector, however, drove in shortly afterwards with the last witness, Mr. Hall. In the meantime, witness and those with him were carefully prevented from seeing the carcass, strict orders having been left about it. When the Inspector came Mr. Chamberlain asked that witness might be allowed to see the carcass, but he refused. Then witness took the Inspector on one side and explained his position. At that time he thought the Inspector was certified by the Sanitary Institute, and told him he was their examiner. He thought that that would have some effect, but instead of that he was rather truculent and inclined to be rude, and finally he refused to let him see the carcass, and, being unable to see the carcass, he made enquiries and found that the butcher had bought two sheep at the same time, and that he had one sheep there. They had that sheep slaughtered, and found it to be infected with this parasitic worm. He took some of the lungs from the fellow sheep and examined it under a microscope, and was able to recover worms from the lungs. The lungs were not affected with tuberculosis. Miliary tuberculosis was practically unknown in the sheep. With regard to the strongylus rufescens in sheep, that was extraordinarily common. It was a little parasitic worm that produced its eggs in the lungs, the eggs were coughed up, and in the nasal discharge got into the pastures. Sheep close cropping were likely to inhale the embryo of this parasite, and therefore if one or two sheep had it the whole flock would speedily become infected. A wet season favoured the life of that parasitic body and favoured infection. The disease was very common, and it would be a safe estimate to put it at 70 per cent. throughout the country. In such cases where the lungs only were infected the common usage of meat inspectors would be to condemn the lungs only unless they were affected to such an extent as to emaciate the carcass. The carcass had to be judged on its merits. The disease was confined to the lungs and the bronchi, and did not spread to the carcass. If it did it would not affect man.

Mr. Charles then submitted there was no case against the persons whom he was representing, because the Act under which the claim was brought set forth that if it

appeared to the justices that if any such animal is diseased or unsound, or unwholesome, or unfit for the food of man, the officer should condemn it. Thus it all came to this, that where there is disease condemnation follows, and that was a matter left to the discretion and judgment on the part of the Inspector. So far as any claim was concerned they were up against this dead end that there was the admission that this sheep or its carcass was diseased. All that had been said on the other side was that it had a disease of a type that did not warrant the destruction of the whole carcass. His submission was that the Public Health Act was passed for the protection of the public, and power was put into the hands of the inspector purposely to use if he found an animal diseased. So far as he knew there was no grounds under that Section 308 that a man could claim because the inspector had taken too much. Professor Woodruff said the lungs ought to have been seized, and who was to be the arbiter in the presence of disease as to whether they alone were to be destroyed, but the person appointed by the statute. If he fortifies that by going to the Medical Officer of Health he (counsel) did not know from a public health point of view what authority could do more. If he was right in his contention the Act must be judged on the words which were set forth in plain English whether the article seized was "diseased or unsound." That had been admitted by all the witnesses who saw that the sheep was diseased, and the only submission before the Bench was that the disease was not such as would warrant the destruction of the whole carcass. There was nothing in the Act of Parliament to warrant the claim now being brought. This was a legitimate and proper exercising of the powers of the Act, and the only complaint on the part of the plaintiff was that the Inspector had ordered more to be destroyed than they wished. If that contention were allowed to stand for one moment, he said without hesitation it would be impossible for any public authority to carry on its business.

Francis John Allen, Inspector of Nuisances for the Rushden Urban District Council, said he held a certificate of the Royal Sanitary Institute, and had had sixteen years' experience, a number of years of which period he had been associated with meat inspection. On 6th March he went to Mr. James' shop and saw a sheep being slaughtered. The sheep was being dressed, and in the course of his duties he examined the animal. He saw it was diseased, and in his opinion it was suffering from tuberculosis. Both the lungs were affected very much with the disease. He examined the glands and found they were swollen and enlarged, and had a yellow cloudy appearance. He got Mr. Knight to go, and that gentleman ordered the carcass to be destroyed. He submitted the internal organs to Dr. Morris. When Mr. Hall, of Wellingborough, examined the animal he told him he had done quite right. Defendant showed Mr. Hall a piece of the lung, and he said he did not know what it was. Mr. James made no objection to the action he was taking, but his brother said rather than have any bother he would surrender it. He (the inspector) thought under the Act of Parliament he need not have let anyone see the sheep, but he allowed the veterinary surgeon, the secretary of the Association, and Dr. Greenfield to see it. Then he thought it had been sufficiently examined. He was bound to draw the line somewhere. It was with no desire to hide anything. Twelve or thirteen gentlemen had seen the sheep in the slaughterhouse, and when they wanted time for further inspection, he thought it time to draw the line.

Cross-examined by Mr. Clarke Hall: He had been six or eight years under the meat inspector at Weston-super-Mare. He obtained his certificate from the Sanitary Institute in 1906. He had been at Rushden close on two years. He did not ask Mr. Hall to go over as an expert. He called on Mr. Hall on a purely personal

matter—a matter entirely unconnected with that case. He didn't mention the case to him until they were in the trap. They had talked over the matter of a man sending meat to Rushden and upon drainage matters. He had called at Mr. Hall's office, and Mr. Hall had been to his office. He had no intention of calling him in to examine the sheep. He had the organs in the trap at the time, and if he wanted expert advice he should have gone to Dr. Morris. He mentioned this case to Mr. Hall amongst other things, and asked him if he would like a drive. He said he would. He drove him back into town, expecting him to get out at his office but he volunteered to go on to Rushden. At Rushden he never asked Mr. Hall to look at the carcass. Mr. Hall asked him to show him a piece, which he did, and he admitted there was disease in it. He said he was not certain it was *strongylus rufescens*.

Mr. Clarke Hall: Do you agree *strongylus rufescens* is frequent in this part of the country?—I don't say you never see it, but not to the percentage the other witnesses have said.

Further examined, defendant said his certificate from the Royal Sanitary Institute was not for meat inspection; it was for inspector of nuisances.

You have no Royal Sanitary Institute certificate for meat inspection?—No.

You have no qualifications as meat inspector?—I have passed the examination of the Royal Sanitary Institute.

That is for drains and the like.

Replying to other questions, defendant said he had seen Walley's book on meat inspection, and had read the extract saying that 99 per cent. of sheep in Edinburgh were affected by *strongylus rufescens*. He had seen glands of a sheep affected with tuberculosis. He saw them at Weston-super-Mare. The inspector under whom he was told him it was tuberculosis. There were two cases in his time. The reason he did not let Prof. Woodruff see the sheep was because so many had been to look at it, and some of their actions did not tend to allow him to let them have any further inspections. He did not know the Professor had come down from London for the express purpose of examining the sheep; in fact he did not know who the man was. The Professor did not tell him at first that he came down for that purpose, nor did he show him a card. Mr. Chamberlain told him who the Professor was, and after something else had happened the Professor told him he had come for the purpose of seeing the carcass. He had heard all the evidence given in the court that day, and he was still prepared to swear that the sheep was suffering from miliary tuberculosis. He still adhered to that opinion in spite of the evidence.

Mr. Charles, after a short conference with Mr. Clarke Hall, said he thought they could shorten matters a little. He should not trouble the Bench with any further evidence, for he did not see that it would profit the case which he had developed before them. Both sides were really agreed upon the principle, but before he came to the only question upon which they differed, he wished to put aside all prejudice which had been introduced by the skilful examination of Mr. Hall as to why Professor Woodruff was not allowed to look at the meat. This did not go to the issue at all, the only issue being whether Mr. James, the butcher, was entitled to claim for the destruction of that particular carcass. That was all.

Mr. Clarke Hall said he would not go into the evidence at all. The question of fact with the Bench was whether the defendants were right or not in their diagnosis. He submitted that as far as the application of facts were concerned the case was absolutely undefended, the defence not having attempted to overthrow the evidence that he had called. His friend had put the Inspector in the witness-box who had no sort of a

qualification as to meat inspection, whose only knowledge had been obtained whilst being appointed to the sanitary office, but even he would not go further than say, "In my opinion it is tuberculosis." The defence had called no evidence to show that it was tuberculosis. They had not called the medical officer to support. His friend had asked him whether he challenged the certificate or not. He (Mr. Clarke Hall) challenged the statement of the medical officer, but his friend could not contest any of the evidence which had been called by the plaintiff. Just think what the probabilities were that any sheep had got that disease. The probabilities were that not one in 20, 30, or 40,000 had got tuberculosis, and mathematically it must be a million to one against the defence being right. There was overwhelming evidence to show that the only thing the matter with this animal was *strongylus rufescens*. He denied that it had been proved that there was tuberculosis established in the glands. The whole evidence was against that, and to the effect that the glands were perfectly normal. No disease was proved in the glands at all, and the carcass was proved to be perfectly healthy, except for the nodules. On the question of fact he was entitled to a verdict.

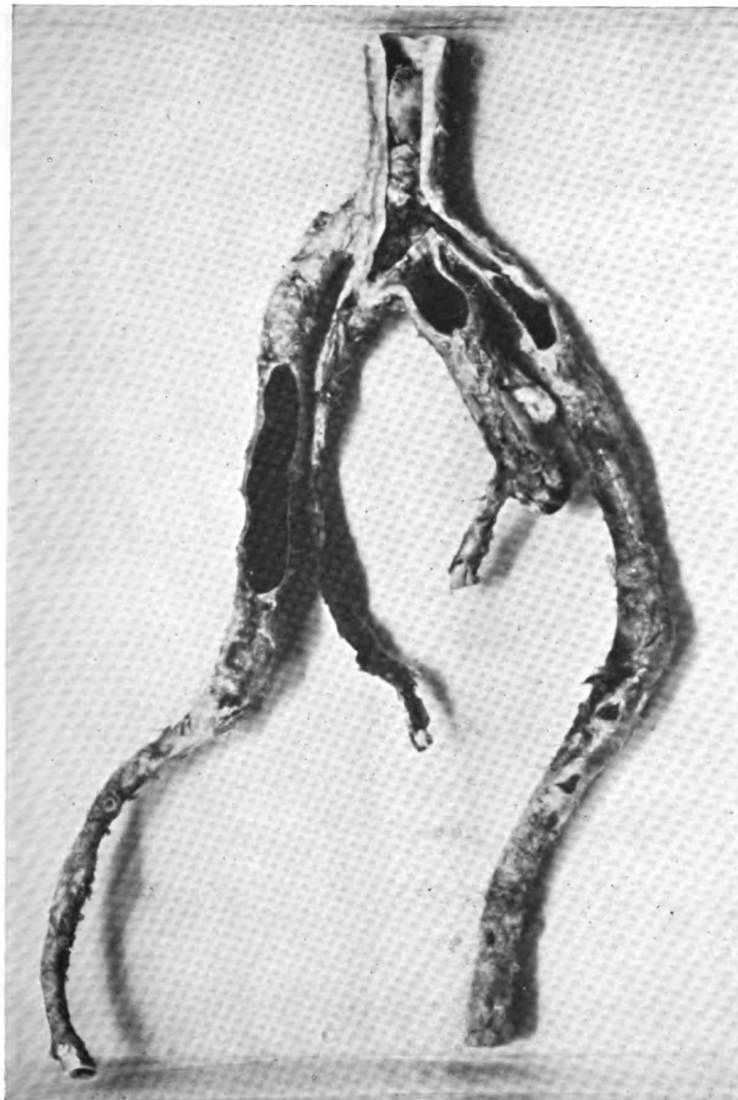
The Bench then retired. On their return the Chairman said: Taking everything into consideration we have come to the conclusion there must be judgment for the plaintiff, £3 5s. being allowed for compensation and £20 for costs.—*Meat Trades' Journal*.

#### Cruelty Charge against an Insurance Co.

Albert Gosling, of Artis Farm, Wroughton, was summoned at the instance of Inspector Driver, of the Royal Society for the Prevention of Cruelty to Animals, for causing unnecessary suffering to a horse at Wroughton; and the Horse, Carriage, and General Insurance Company, Ltd., of Queen Victoria Street, London, E.C., were summoned for omitting to do certain things whereby such cruelty was committed.

Mr. Stuart Bevan (barrister) appeared for the Society, and Mr. W. Freeman Barrett (barrister) was for the Insurance Company. Mr. Gosling was not legally represented.

In opening the case, Mr. Stuart Bevan said that Mr. Gosling was a dairyman at Wroughton, and he was charged with causing unnecessary suffering to a mare, while the Insurance Company were charged with unreasonably procuring the omission of certain acts whereby the animal suffered considerable pain. The form of the proceedings against the Company was somewhat novel. They were taken under the recent Act of 1911, which gave far greater protection to animals and extended the liability of people who had any dealings with animals. The prosecution alleged that the mare was suffering from parturient laminitis—fever in the foot—and it was cruel to allow her to continue to live, turned out in a field as she was, to do for herself as to feeding. The Insurance Company, who were masters of the situation—and it was impossible not to feel a little sympathy with Mr. Gosling in the matter—stood by with a full knowledge of the condition in which the animal was suffering intense pain, and when there was only one thing to do, and that was to slaughter her, they refused to give the necessary instruction or leave or license for the destruction of the mare. Some time in May Mr. Gosling had a mare in foal, and he was anxious to insure both mare and foal. For this purpose he took out a policy with the defendant company insuring the mare for £25 and the foal for £3. The policy contained certain conditions, one of which was to the effect that if the animal was destroyed without the written or telegraphed authority of the Company's Secretary or Manager, the right to claim should be absolutely for-



DOUBLE ILIAC THROMBOSIS.



feited. On May 17th the mare foaled. The foal was not alive, and the mare was very bad, having developed the disease stated. Counsel read correspondence which had passed between Mr. Gosling and the Company, and also a certificate by Mr. Cundell, veterinary surgeon, contending that on June 8th or 9th from such certificate the Company knew that the animal was not responding to treatment, that it was useless to go to further veterinary expense in treating her, that the hoof was separating at the coronet, that she was in great pain, and that Mr. Cundell advised her destruction. The Company, however, disregarded that, and commenced to negotiate with Mr. Gosling as to how much he would take. It was a question of pounds, shillings, and pence. The matter was not settled until June 29th, when a sum was paid. The next day, however, the Society's inspector visited Mr. Gosling's field and found the mare still alive with no artificial food, and it was not until the following day that she was killed.

Inspector Driver, of the R.S.P.C.A., said that on Wednesday, June 26th, he saw Mr. Gosling at Wroughton and said: "Have you not got a horse here that is very lame?" He said, "Yes," and showed witness the animal, which was very lame in the near fore leg. There was a wound in the coronet from which matter discharged. Witness said to Gosling, "The mare ought to be killed," and he replied, "I know she ought. I have her insured, and I have written to the Company asking permission for her to be killed, and so has Mr. Cundell, but they won't give permission." There was no artificial food in the field, and witness said: "You ought to feed her," to which Gosling said: "If I give her hay she won't eat it." "Well," witness answered, "If you give it to her she will have the chance," and Gosling agreed. On June 29th witness visited the place, and Mr. Gosling said, "I have settled with the Insurance Company." Witness said: "Why don't you have her killed?" and Gosling stated that he had not had time. On June 30th witness found the mare still alive with no artificial food. Answering witness, Gosling said that he was going to have the mare killed the next day. Witness said: "No, you will have her killed now," and upon that the animal was shot. Gosling handed witness the correspondence he had had with the Insurance Company.

By Mr. Freeman Barrett: Witness knew that the mare had been attended from May 19th to June 9th by Mr. Cundell, who was an experienced veterinary surgeon, and no doubt would do the best he could for the animal. There was plenty of grass in the field. He had had some experience of this disease. The mare was in fair condition. There were no sores on the hips or thighs. He did not know that the mare was feeding well up till that time. He could not say that the Company were responsible for the last two days of delay in slaughtering the mare.

Mr. Barrett: Mr. Gosling, being the insured person, appeared anxious to have the mare destroyed in order to get his money?—Witness: I don't know.

Have you considered this policy of insurance granted to Mr. Gosling?—I have read it.

You know it was a policy against death only?—Yes.

You know there is no responsibility on the part of the Insurance Company unless death ensues as the result of accident or disease?—I believe that is so.

Mr. Barrett read one of the provisions stating that it was a condition precedent to any claim under the policy that in the event of accident or illness of the animal the insured should at his own expense immediately obtain the services of a properly qualified veterinary surgeon. He asked witness if that provision was not in the cause of humanity, and witness replied in the affirmative.

Mr. Bevan: I should think it was in the interests of the Insurance Company.

Counsel read further conditions in the policy, and then said to witness: So the provisions provide for

proper veterinary attention, for the provision of suitable food wherever the animal was, a supply of water, and the cleanliness of the shed or shelter in which the animal was placed?—Witness: Yes.

You don't complain that turning the mare into a field conducted materially to cruelty?—I think it did.

Mr. F. H. W. Cundell, veterinary surgeon, said that he attended the mare from May 19th to June 9th, and on the latter date he wrote the certificate which had been quoted by Counsel advising that the animal should be destroyed, as she was suffering great pain.

By Mr. Barrett: It was a difficult case from the first, and he did everything he could for the animal. Recovery in these cases was always very slow. Parturient laminitis was a common disease in mares, and there were about 2 per cent. of deaths in such cases. The majority of cases responded to initial treatment very quickly. Sometimes all four feet were involved; in this case there were only two affected.

There would have been more pain, more distress, and more suffering if the four feet had been involved?—Yes.

Further cross-examined, witness said that as cases became sub-acute and chronic the pain became less. By the advent of suppuration the tension became relieved. There was only suppuration in one foot in this case.

Mr. Barrett: Was there an absence of superficial abrasions?—Well, she was lying on such soft ground that you would not expect there to be any.

Surely the fact of her feeding well indicates that she was not suffering great pain?—No, it does not. A horse will feed when in pain.

Answering further questions, witness said that a veterinary surgeon had in cases of this kind to have regard to commercial considerations in the advice he tendered.

Mr. Barrett: Were you not influenced in your advice to Mr. Gosling that the mare would take a long time to recover, and the great expense that would be involved, and having regard to the pain, when you said it would be better to have her slaughtered?—When I wrote that letter—

Mr. Barrett: Would you mind answering the question?—When I wrote that it was quite as much in the interest of the Insurance Company as Mr. Gosling. I gave an absolutely unbiassed opinion.

Replying to further questions, witness said that in laminitis death was sometimes due to pneumonia and sometimes exhaustion.

Mr. Barrett: This mare would not die of exhaustion, because she was feeding well and was in good condition. And she had not got pneumonia?—No.

Is not almost complete recovery common in cases much worse than this?—I have never seen a much worse case.

That is not an answer. Are you prepared to say that recovery does not often happen in much worse cases than this?—No.

Witness agreed that as the grass was soft the mare was in as good a place as she could possibly be in the field. He knew that the late Mr. Broad, a veterinary surgeon of Bath, and one of the examiners to the Royal College of Veterinary Surgeons, recommended exercise in the early stages of the disease, but Mr. Broad had a treatment of his own in these cases.

Mr. J. C. Coleman, veterinary surgeon, of Swindon, said that on June 29th he examined the mare, and found her in very great pain, swinging her leg, which was swollen from the coronet to the elbow, there was suppuration of the hoof, which was shedding, and the temperature of the animal was 104°6. With the leg in that condition the mare ought to have been destroyed some time before.

Col. Calley: Do you agree with what Mr. Cundell has said—that he had never seen a worse case?—No; I have seen worse, but it was a very bad case.



By Mr. Barrett: He had never seen more than four cases recover in which the hoof was in the same condition as in this instance. Witness did not agree with the authority of the late Professor Williams, of Edinburgh, quoted by counsel, remarking that he was rather obsolete in some matters, particularly in regard to what he said as to glanders. Many cases of laminitis recovered, but this was one of parturient laminitis.

Supt. Harry Nash, of the R.S.P.C.A., stationed in London, said that on June 20th he saw the Managing Director and Secretary of the Company at their head office in regard to this case. Witness was informed by them that it was true that if the animal was destroyed without permission the insurance money would not be paid. He pointed out that under the new Act they were liable, and the reply was that the Company did not know that the Act was in force. They said they would telegraph and make enquiries, but they had already sent a cheque for £12 10. They also said that they had received a certificate, but they thought, judging from the wording of it, that no great harm was done to the animal by keeping it alive. Witness pointed out that the veterinary surgeon said that the animal ought to be destroyed, and they answered that that was a matter for the owner of the horse.

Mr. Barrett: Really the conversation turned upon the wording of the certificate?—Yes.

Witness added that the Managing Director and Secretary looked upon the case purely from a commercial point of view.

This concluded the case for the Society.

Mr. Gosling, on oath, stated that he took out the policy on May 10th, and the mare foaled on May 17th or 18th. He called in a veterinary surgeon before she foaled, and at once advised the Insurance Company that the foal had been born dead, and that the mare was not going on as well as he would like. He kept the Company advised as to the condition of the animal, and had a lengthy correspondence with them or their district agent. The letters produced he received from the Company. On May 30th he sent a post card saying that the mare was not making progress, and, in fact, it was doubtful if she would ever be of any good again. On June 4th he wrote saying that he did not think there was any cure for her, and adding that she was having care and attention. Replies received from the Company—most of which were from the Bristol agent—were to the effect that they wished to be kept well posted as to her progress, and hoping that she would receive every care in the matter of attendance, etc. Later he wrote asking permission to have the mare slaughtered, and received a reply from the district agent saying that the matter was being placed before the head office. Subsequently, he had an interview with a representative of the Company, and later an offer of £12 10 in settlement, for which amount a cheque was enclosed. This witness refused, and again asked permission to destroy the mare, adding that there might be trouble if an inspector of the R.S.P.C.A. saw her. He also asked for payment in full, promising that in that case he would give the Company the rest of his insurance business. Mr. Tozer, as representing the Society, offered witness £12 10 in settlement, which witness refused. Mr. Tozer saw the animal and said no inspector would condemn it to be killed. On June 29th, in the afternoon, he settled with Mr. Hunter, the district agent of the Company, receiving £21, and witness saw Mr. Saunders, of Newport Street, who promised to send a man to destroy the animal and take the carcase. As he did not come, witness sent for Mr. Cooper, who slaughtered the animal on the next day—a Sunday. When witness turned the mare into the field first she would not eat bran mash; all she would eat was grass, of which there was a plentiful supply. He had lost £12 on the transaction by veterinary expenses, the

difference between the amount of the insurance and the sum actually paid, etc.

By Mr. Barrett: The settlement effected between Mr. Hunter, as representing the Society, and witness, was quite a friendly one. Under the terms of the policy the insurance money was not payable unless death ensued.

Mr. Bevan: If she was suffering great pain, and the matter was settled on June 29th, why did you not destroy her at once and not wait two days?—I did not wait two days.

Did you not tell the Inspector on the Sunday that you were going to have her destroyed the next day?—I had sent for the knacker before he came.

Why not have put a bullet through her as soon as you got your cheque on the Saturday?—I did not have much time, I did not get home till the evening.

Mr. Bevan: It would have saved her some hours' agony.

#### THE DEFENCE.

After luncheon, Mr. Freeman Barrett said that since the adjournment he had had an opportunity of consulting his veterinary experts and he was instructed to take this course, which he hoped and believed would commend itself to the Bench. The veterinary surgeons whom he had there were men foremost in the profession, who would refuse to go into the box and express an opinion which they did not conscientiously uphold. Having regard to the evidence of Mr. Coleman, more especially in relation to the extent of the suppurative of the fore leg and the fact of the hoof being shed—and, what was perhaps more important still, the temperature of the animal—his veterinary surgeons were of opinion that when Mr. Coleman saw the mare on June 9th there was no reasonable prospect of complete recovery, and it would have been better, when the suppuration and fever were established, that the mare should have been destroyed. This was an unprecedented case against a big insurance corporation governed by a body of gentlemen who were humane, and some of whom were subscribers to the society. This was a circumstance which should influence the Bench in determining whether or not a mistake had been made in respect to the importance to be attached to the certificate of Mr. Cundell on June 9th. In order to protect itself against fraud the Company were compelled to insert into their policy certain essential conditions, and he contended that apart from the question of morality there could be no conviction in law in this case. It was to be regretted that animals had to suffer pain, but men also had to suffer. Taking the policy as a whole, no one could say the conditions attached were unreasonable. After the evidence of Mr. Cundell and others the turning of the mare into the field and the treatment she received could not be converted into a charge of cruelty. Assuming, however, that there had been negligence or carelessness, the responsibility was Mr. Gosling's. The charge against the Company was that they omitted to do certain things, but there was not a tittle of evidence to support such an allegation. There was in existence a contractual relationship between the Company and Gosling, and the Company could not be compelled to depart from the terms of their civil contract. The new statute under which these proceedings were instituted was not passed to deal with a case of this sort; it was simply passed to enlarge the circle of those persons who could be swept in with a view to prosecutions for cruelty, as, for instance, the liability of owners irrespective of their servants. It was further intended to deal specially with cases of cruelty to horses shipped for export. There was no moral duty upon the Company that they should advise Mr. Gosling as to the course he should pursue. There was no law to compel a man to kill an animal except in a certain eventuality, which eventuality was inserted in this new Act of Parliament. In these cases,



however much they might regret suffering, there must be no sentimentalism. With regard to Mr. Cundell's certificate, dated June 9th, there was not a word in that to the effect that the mare was likely to die. Mr. Gosling was anxious to get his insurance money. Mr. Cundell did not write and say the mare was going to die; he did not say she was suffering from pneumonia or exhaustion. This was not an insurance policy as regards depreciation in value; this was an insurance against death only.

The Clerk asked if, after getting a veterinary certificate such as Mr. Cundell's, it was not the duty of the Company to send down another veterinary surgeon to examine the animal.

Mr. Barrett: There is no clause in our contract to compel us to do that. I know of no proposition in law to compel a man to undertake something outside his civil contract. Counsel further contended that in law the Company were not compelled to pay Mr. Gosling anything; it was out of pure kindness that they did so.

The Clerk asked if the case had been brought into Court, and an order for slaughter had been made, would not the Company have been liable?

Mr. Barrett said that was another point; that was dealt with in the new statute. There was a special provision under which animals might be destroyed other than with the consent of the owner. But this was only under a certain set of circumstances, such as when an animal could not be moved without causing pain as the result of an accident in the street, and the like. Counsel went on to deny that the Company in any action they adopted influenced Mr. Gosling's mind in the case.

In further remarks, counsel summed up his propositions—namely, that the omission to slaughter did not offend the law, that death would not have resulted in this case, and no legal or moral obligation rested with the Company except when death ensued. So far as the moral aspect of the question was concerned there could be no doubt at all that if this case was ultimately decided against the Company immeasurable suffering would result, because in future cases interference before death would be so risky and so costly that they would refuse to give advice and would rely purely upon their contractual relationship.

Mr. Robert Riddell Wilson, general secretary of the defendant Company, said that Mr. Cundell's certificate on June 9th was sent to them by the local agent and considered. The construction put upon that certificate was that Mr. Cundell wished to save veterinary expenses, and it did not convey to his mind that the horse was likely to die. The Company had a veterinary surgeon whom they employed to visit cases, but they did not deem it necessary for him to see this animal. If the certificate had conveyed the idea that it was a case of cruelty they would have telegraphed for the animal to be killed.

By Mr. Bevan: The certificate did not convey to his mind that there was any necessity to send a veterinary surgeon to inspect the animal.

Mr. Bevan: In his certificate Mr. Cundell says: "I think it only fair both to your Company and the owner to advise her being destroyed." Do you suggest that that did not convey to you, reading it now, "Because I think it cruel to keep her alive?"

Witness: Reading it now, I have a very different opinion. I formed a different opinion after I had seen Mr. Cundell.

Did it strike you as a serious case?—No, it did not. Did you realise that the animal must necessarily be in great pain?—No.

But really he says she was in great pain?—We did not realise it was anything like an hopeless case.

Did you realise that the animal was in great pain?—Mr. Cundell says so. The first impression conveyed was that the veterinary wanted to save his client expense.

Did you believe that she was suffering great pain?—Yes.

Knowing that she was in great pain, that the hoof was separating, why did you not take some steps either to send a veterinary surgeon down or telegraph to have the animal killed?—The letter conveyed to one's mind the idea that it was to save expense.

You put the worst construction?—I think it was the only construction.

You know the penalty of killing it without your consent. Why did you not write and say "Have it killed by all means?"—I did not think the certificate justified that.

Mr. Stuart Bevan replied briefly on points of law, and contended that by the terms of the policy as against the assured the Company constituted itself the person or the body who should have the last word—the decisive word—as to whether the horse was to live or die. He contended that the Company had not performed the obligation imposed on them reasonably. These being quasi-criminal proceedings, the law was not concerned as to the civil relationship between these parties. If such a contention as his friend's on this point was to hold good persons could contract themselves out of any Act of Parliament.

#### THE DECISION.

The Bench retired and were absent about twenty minutes. On their return

Col. Calley said: I think it will be better if we take the case of the Insurance Company first. The Bench have very carefully considered the matter, and they have come to the conclusion that the Company were accessories to the cruelty in that they omitted to do what might be reasonably expected in the case for the prevention of cruelty—that is, that although they had the certificate from the veterinary surgeon on June 9th—at least, it was dated June 9th; we will take it the Bristol branch go it on June 10th, and allow a day for it to be sent to the head office—from that date till June 29 this animal was kept alive, owing to their omission to give permission for its destruction. The only reply that they gave to the certificate was apparently to send an agent to try and settle the matter for £12 10s. We think that the case which has been cited by counsel, in which a decision was given by Baron Kelly, was one of those cases which this new Act of Parliament was intended to supply the omission of the law previously to deal with, and that the present statute distinctly brings in this sort of case. What course the Insurance Company may take in future is a matter for them to consider. There is no doubt that by refusing to give permission for the destruction of the animal they conducted to this cruelty. As the expenses will be very large in this matter—I understand ten guineas—the Bench propose to inflict a very small fine. The possible fine is £25, but we propose to fix it at £2 2s., with £10 10s. costs.

With regard to Mr. Gosling, although the Insurance Company are guilty as accessories, you are the person primarily responsible. You see you were the owner of the horse; it was in your power, and apart from any monetary consideration it was incumbent on you to shoot this horse on June 9th or later. Of course you were influenced by the fact that the Insurance Company would not pay the money if you did, and consequently there is that excuse for you. Further than that, you did not destroy the animal at the moment that you could have done after the settlement. There was a delay of a day, of 24 hours or more, but taking all things into consideration the Bench do not wish to deal hardly with you. You will be fined £1 and 7s. costs.

The Clerk (to Mr. Barrett): Do you want a case stated or time to consider the point?

Mr. Barrett: I want time to consider it. The directors of the Company will have to be consulted. Of

course it is a new case. If you will defer judgment for seven days, to give me an opportunity—

Col. Calley : Oh, certainly.

Mr. Barrett: The Company will pay Mr. Gosling's fine.

#### Burning for Lampas : charge dismissed.

At Merthyr Police Court, on Friday, September 27th, before Mr. Plews (Deputy Stipendiary) and Mr. John Evans, Richard Owen, blacksmith, Pontlottyn, was summoned at the instance of the R.S.P.C.A., for ill-treating a horse, and Geo. Bale, manager of Messrs. Hansard's Stores, at Pontlottyn, was summoned for aiding and abetting. Mr. F. P. Charles was for the defence. Mr. R. P. Thompson, Cardiff, prosecuted for the R.S.P.C.A.

Charles Watkins, veterinary surgeon, Tredegar, said he was asked to go to Messrs. Hansard's stores. He there saw a black gelding. He found that the pallet of the mouth had been severely burnt with a red-hot iron, a remedy, sometimes adopted by blacksmiths, for lampas. The treatment was injurious and quite unnecessary, it caused the animal extreme pain.

Mr. Charles : It causes you pain to have a tooth out, but it is a good thing for you.—Witness said the burning made the mouth extremely sore, and interfered with the feeding. "I consider the treatment is brutal in the extreme, and quite unnecessary," he added.

Mr. Charles : Have you found a new remedy?—Witness said that this horse did not suffer from lampas. Only young horses had that, when cutting teeth, but this horse was 13 years old.

Mr. Plews : What would have been the proper course?—Witness : To have treated the horse for pleurisy. Loss of appetite is due to that, and not owing to the condition of the mouth. The horse died eight days after he saw it as a result of pleurisy.

Mr. Charles : And not from the red hot iron?—That would aggravate it. It interfered with its feeding.

This treatment has been adopted for years in this and other countries?—Yes, but people have got wiser.

Perhaps not anywhere outside Tredegar.—I hope they do not do it in Merthyr.

Will you be surprised to hear that it is done in Merthyr.—On the quiet, said witness.

No, as a humane act?—I deny it.

Do you deny that the people think that they are doing a humane act?—I don't deny that.

You believe, then, that the man who did it was actuated by good motives?—He might have been.

Has he committed a breach of the Animals Act?—If he has inflicted pain.

Although he believes it is for the animal's good?—I do not think he is competent to judge.

Is this man respectable?—I don't know him.

Do you know that he has been a farrier all his life without a black mark against him?—I cannot say to the contrary.

Witness also said that lampas was a growth in the roof of the mouth in young horses only. He was prepared to say that this horse did not have lampas. It was utterly impossible for an old horse to have it.

What do you call an old horse?—Past 5 or 6 years, when it has got all its teeth,

Have you never known in your life a horse more than five years suffer from this disease?—No, lampas is a condition of youth only.

There is a common impression that dogs only get temper during puppyhood?—I don't believe that. I know otherwise.

You are taking the same view with regard to a horse?—No. There is a marked difference between the two. I was sent for to attend this horse, and I communicated with the Society when I found that the horse had been so badly treated.

You do not know what was in the mouth when the iron was applied?—Mucous membrane was there.

Is it the practice now, when an horse has an attack of this kind, to burn the mouth?—No.

Is it not usual?—It is grossly cruel, and the wrong treatment entirely.

A cure can be brought about by a different process—Yes

Inspector Barrett, of the R.S.P.C.A., said he saw the horse four days after the last witness. He thought the animal was 12 to 14 years old. Its bodily condition was good, but the roof of its mouth was badly burnt. In consequence of what Bale told him, he saw Owen. The last named said that he rubbed salt into the upper part of the mouth, and then put the iron on it. He told defendant that veterinary writers thought that treatment died out fifty years ago. The animal should have been given soft cooling food. To apply a red-hot iron in this case was about the most cruel thing to do. It destroyed the sense of taste, and inflicted pain for a considerable period, during which time the horse could not eat. To say that the horse, at this one's age, had lampas was entirely wrong. Witness had had 22 years experience and had never known this treatment adopted. A veterinary surgeon would not adopt it at all. Occasionally such cases were brought to the notice of the Society, but it was a difficulty to prove it.

Mr. Charles (interposing) : This is all very interesting.

Inspector Barrett : I am addressing the Bench.

Mr. Charles : You are not entitled to address the Bench. You are an advocate here. You cannot say what is not evidence by way of speech.

Inspector Barrett : That's a matter of opinion.

Mr. Charles : If you choose to argue with me we will have the opinion of the Bench upon the matter.

Witness agreed that burning was a common practice years ago, but was quite obsolete now.

Mr. Charles : Since Inspector Barrett came to the district. (Laughter).

Mr. Charles produced a volume on farriery, which witness said he had never heard of before. Reading from the book, Mr. Charles pointed out that burning out with a red-hot iron was recommended for lampas.

The Inspector : What's the date on the book?

Mr. Charles : I don't know. (Laughter).

Witness : It rather suggests that you got it from the British Museum.

Mr. Charles : What has the British Museum to do with it?—Witness : They keep works of antiquity there. (Laughter).

Mr. Charles : And recent books, too.—Witness : I am satisfied that that is a very old and obsolete work.

Mr. Plews said he knew by experience many years ago that this method was adopted to cure lampas; in fact it was the only known remedy to burn the mouth. But it seemed to have been put an end to, and another method adopted.

For the defence, Owen said he had been a smith for 35 years, and had treated horses as a farrier. This horse was taken to him on the 2nd September by Bale. He found the animal suffering from lampas, a blister rising in the roof of the mouth. The horse suffered from inflammation of the bladder and lungs. He did nothing that day, but he told the haulier to send the horse to a vet. On the following day Bale again took the horse to his smithy, but it was too dark for witness to treat it for lampas. The next day he again saw the horse, and was quite satisfied that it had lampas. He adopted the quickest cure, that of burning with a hot iron. That had been the recognised treatment for years. Witness told the vet. that he had released the horse from pain so that it could eat.

Mr. Charles produced several works on farriery in support of his defence, and the Bench said they would give the verdict on Tuesday.

On Tuesday Mr. Plews said he thought what had been done was to cure the animal of pain and a disease, and the cases would be dismissed.—*The Express* (Merthyr)

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Outbreaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended Oct. 19	12		13				5	6	12	21	1	42	912
Corresponding week in	1911	25	25	29			3	6				28	290
	1910		26	12			10	20			2	32	390
	1909			13			8	21			1	27	277
Total for 42 weeks, 1912	630		712		82	602	148	270	2465	5301	183	2442	32735
Corresponding period in	1911	710	881	1393	18	467	166	396			315	2036	23855
	1910		1174	1047	2	15	313	911			359	1173	10701
	1909						443	1568			489	1385	12447

† Counties affected, animals attacked: Kent 1, London 4, Glamorgan 1.

Board of Agriculture and Fisheries, Oct. 22, 1912

IRELAND. Week ended Oct. 19	...	...	11	20	...	...	Outbreaks	1	11	2	6
Corresponding Week in	1911	...	...	...	...	...	...	...	6	5	63
	1910	...	...	...	...	...	...	2	4	2	17
	1909	...	1	1	...	...	...	1	5	...	...
Total for 42 weeks, 1912	...	3	3	42	287	...	...	56	284	193	1540
Corresponding period in	1911	...	7	14	...	...	2	3	52	277	1895
	1910	...	5	8	...	...	1	2	62	375	1778
	1909	...	8	3	...	...	...	...	59	316	1561

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Oct. 21, 1912

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## PARLIAMENTARY.

## JOHNE'S CATTLE DISEASE.

In the House of Commons, on Monday, Oct. 14.

Mr. CHARLES BATHURST asked the President of the Board of Agriculture whether he is aware that Messrs. Twort and Ingram, as the result of research work at the Brown Institution, have discovered a diagnostic vaccine which is specific for John's disease in cattle, sheep, and goats, and will enable any owner of such stock to eradicate the disease from his herd or flock and to prevent its reintroduction by newly-bought animals; and whether, in view of the fact that this increasingly prevalent and fatal disease is thus demonstrable to a stock-owner in its earliest stages and that, the carcasses of affected animals being saleable, no compensation need be provided, he will consider the desirability of making compulsory the slaughter of such animals, and thus effectively stamp out the disease throughout the country?

THE PRESIDENT OF THE BOARD OF AGRICULTURE (Mr. Runciman): I have received a pamphlet descriptive of the vaccine to which the hon. Member refers, but I do not think that sufficient evidence has as yet been adduced to justify the claims made with respect to it. The pathology and epizootiology of John's disease are being fully investigated on behalf of the Board, and I understand that the first report on the subject will be published shortly. In these circumstances it would be premature for me to adopt the suggestion made by the hon. Member in the concluding part of his question.

Mr. C. BATHURST: Will the right hon. gentleman see, before conducting independent investigations, that Messrs. Twort and Ingram are consulted as to the very valuable suggestion they have made?

Mr. RUNCIMAN: I shall be only too glad to obtain any information from any direction, but I am told that the evidence adduced in support does not justify it.

Mr. C. BATHURST: Have these gentlemen been asked to prove their case before the Board so that it can be judged on its merits?

Mr. RUNCIMAN: I do not know that they have been asked to prove their case before me, but we have evidence without asking them to come before us as a court of appeal.

Mr. C. BATHURST asked whether any application has been made through the Board to the Development Commissioners on behalf of the Brown Institution for a grant in aid of the research work of Messrs. Twort and Ingram in connection with John's disease in cattle and sheep; and whether, in view of their discovery of a reliable diagnostic vaccine for this fatal disease, and their inability, through lack of financial resources, to conduct an extended field experiment with a view to its further elucidation, such an application has received or will receive the approval of the Board?

Mr. RUNCIMAN: An application for a grant from the Development Fund in aid of research work in connection with John's disease was made by the superintendent of the Brown Institution last year, but the Commissioners were unable to recommend that it should be complied with. As the hon. Member is aware, a grant for research work in connection with the disease in question has been made to the Royal Veterinary College.

### Breeding in British Columbia.

At the Dominion Exhibition recently held at Ottawa, the horses exhibited from British Columbia secured the first prize in all the classes for which entries had been made, including the champion stallions and female Shires, as well as first prize in the championship for Shire stallions. High honours were also taken by this province in the Clydesdale class. In the dairying cattle section the Holsteins from British Columbia carried off the grand championship and diploma for the best female of any age.

### Horse Breeding in Queensland.

Increased attention is being paid to horse-breeding in Queensland, which is an ideal country for the purpose. The number of horses given in the latest returns show that Queensland has no fewer than 618,954, being over one-fourth of the total number returned for the whole Commonwealth; and the steady increase year by year during the past decade, from 399,122 returned in 1902, suggests that the advance made in horse-breeding is based on solid and permanent lines. A large remount trade is now done with India, Java, and the East, and although motor cars are to be seen in all parts of Queensland, the horse has not been supplanted, as is evident by the fact that two years ago the number of horses in Queensland was only 593,813. Much has been done already in the cultivation of the Suffolk Punch and the Clydesdale for draught horses, and in the production of fine hackneys and trotters.

### A New Wool Industry.

In opening the Garton course of lectures on Colonial and Indian agriculture at Edinburgh University, Prof. Wallace dealt with the breeding of Karakule sheep (from an oasis of that name in the Desert of Bokhara), the lamb skins of which are well known as Persian lamb, broad-tail, and Astrachan, in the fur trade, and are used as ornamental fur for trimming costumes and robes and in making ladies' fur coats. The recent scarcity and dearthness of the fur of wild animals had led to the substitution of the dressed skins of Galloway and polled-Angus cattle, and of Asiatic pony skins for Buffalo robes, also to the breeding of foxes in Canada on farms for the special purpose, the prices of dog foxes of the rare variety required having risen to hundreds of pounds. The fairy tale that the ewes were killed before the birth of the lamb to give the jet black skin additional market value, originates through the skins of prematurely born lambs, under the name of broad tails, being of greatest value in the trade. In storm seasons ewes are liable to give birth prematurely to their lambs, and if the lambs live for a short time and breathe, the skins are valuable; if still-born, they are worthless. When the lamb is born at full time, it is necessary to kill it before it is three days old to retain the tightness of the curl and the beautiful lustre, which are two of its special features.

The Karakule product was now one of the great standbys of the trade, and it was capable of almost unlimited expansion through crossing with other breeds of lustre-woolled sheep. Karakule tight wool breeding had been started on a commercial scale with success in America by Dr. D. C. C. Young, and in German West Africa, as well as in European Russia and Germany, but no country provided sheep more suitable, or conditions more likely to succeed than Great Britain.—*N.B.A.*

### Iceberg Detection.

Experiments are being conducted on R.M.S. Royal Edward by Dr. Coplans himself, with the co-operation of the Canadian and United States Government, which originated, we believe, in some observations made by him while conducting a research into the effect on certain serum reactions of the passage of an electrical current. They were carried on at Leeds, where Dr. Coplans is demonstrator of bacteriology and public health at the University, and showed incidentally that the conductivity of the liquids he was using varied with their temperature. Finding that this was true also of salt water, Dr. Coplans, when methods of detecting icebergs were brought under discussion by the Titanic disaster, worked out a system which he hopes will prove that the alteration of water temperature caused by the presence of an iceberg for many miles around it may be utilised for revealing its existence long before a vessel comes within the danger zone.—*B. M. J.*

### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Oct. 18.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

W. T. Brookes (late Lieut. A.V.C.) to be Lieut. Dated Sept. 28.

### Personal.

Mr. BRENNAN DEVINE, Veterinary Department, City of Birmingham, who was operated on for appendicitis on the 12th October, is now making favourable progress towards recovery.

Mr. W. GORDON BARNES, M.R.C.V.S., Superintendent of the Islington Cattle Market, has been appointed Superintendent of the Durban Abattoir, at a salary of £500 per annum, rising by yearly increases of £25 to £650. Mr. Barnes, we understand, will leave the Metropolitan Market about Christmas.—*M. T. J.*

THOMAS—PHILLIPS.—A very pretty wedding, which aroused much local and general interest, was solemnised at All Saints' Church, Ipswich, on Wednesday afternoon, 16th inst., the contracting parties being Lieut. William Howard Thomas, M.R.C.V.S., of the Army Veterinary Corps, son of Mr. and Mrs. James Thomas, of Richmond, Surrey, and Miss Francis Maude Phillips, daughter of Mr. and Mrs. Henry Phillips, of Holly Lodge, Ipswich.

There was a very large attendance, for the bride and her family are extremely popular in the district. The bridegroom and his best man were in uniform whilst a number of the Legion of Frontiersmen, of which force the bride's father is commanding officer, lined the chancel in the church, and as the newly-married couple left the church they passed under an arch formed by the Frontiersmen's riding whips. The bride was given away by her father. The bridesmaids were Miss Daisy Phillips (sister of the bride), Miss Dorothy Thomas (sister of the bridegroom), Miss Gladys Gillett, and Miss Ettie Hills. The best man was Lieut. George Kelly, a brother officer of the bridegroom. The service was fully choral, and was conducted by the Rev. S. W. Key (Vicar of All Saints'), assisted by the Rev. W. E. Fletcher (Rector of St. Matthew's).

After the ceremony the reception was held at Holly Lodge, where a large number of guests were entertained. Later in the day Mr. and Mrs. Thomas left for their honeymoon in London prior to sailing for India in November. The presents were numerous.—*East Anglian Daily Times*.

## OBITUARY

EDWARD PRICE, M.R.C.V.S., Birmingham.

Graduated, Lond: April, 1865.

Mr. Price died on Oct. 7th, at "Cora Lyn," Warwick Road, Solihull, Warwick, from chronic cardiac degeneration, at the age of 68.

OWEN COLL, M.R.C.V.S., Thomas St., Limerick.

New, Edin: April, 1876.

Mr. Coll died on July 16th, from hepatitis, followed by heart failure. His age was 56 years

ARTHUR JOHN BLAKE, M.R.C.V.S.

Lond: January, 1881.

Death took place on Oct. 14, at 147 Ashley Road, Poole, Dorset, from pulmonary tuberculosis. Aged 56 years.

JOHN BOWMAN, M.R.C.V.S., Field House, Acomb, York.

Edin: May, 1852.

Death occurred on Oct. 22nd from Bright's disease, at the age of 82 years.

MOSES HERBERT ANDREWS, V.S., Fordingbridge, Hants, died on Oct. 19. At an inquest held on Oct. 21 a verdict was given that he had died from prussic acid poisoning. Aged 56 years.

## CASTRATION.

Sir,

After reading the numerous letters on castration by Mr. E. Wallis Hoare and Mr. G. Mayall, I have come to the conclusion—judging by their wild remarks on the subject—that these gentlemen cannot do the standing operation.

If it could be arranged to have a few colts at the Royal Veterinary College, London, I should be delighted to give them a practical lesson, then we (pre-historic operators) shall be pleased to read their comments in your paper.—Yours faithfully,

H. A. BARRETT.

## A SUGGESTION.

Sir,

I think it will be generally admitted that the greatest and most notable discovery in veterinary bacteriology during the last decade is the method of growing the bacillus of John's disease by Dr. F. W. Twort and Mr. G. L. Ingram, M.R.C.V.S. It is not often that a medical man of high eminence is associated in his researches with a member of the veterinary profession, nor does it often happen that original investigations with such important results as the above, have been achieved in Great Britain, and, moreover, confirmed by Continental authorities, and later on by a well-known British veterinary pathologist. Hence I make the suggestion that the Council of the Royal College of Veterinary Surgeons should honour themselves by adding the name of Dr. F. W. Twort, M.R.C.S., L.R.C.P., to the list of Honorary Associates of the College, of course with his permission.—Yours, etc.,

E. WALLIS HOARE.

## RESEARCH SCHOLARSHIPS—THE OTHER POINT OF VIEW.

Sir,

In the issue of *The Veterinary Record* for October 12th certain questions were asked regarding the way in which the above scholarships are granted, and the general idea of the questioners seemed to be that the right man had not been appointed. Now I am given to understand that the nomination of the candidate is made, or at any rate was made in this instance, by Sir John M'Fadyen. The question, therefore, simply resolves itself into this: "Are we entitled to criticise a choice made by Sir John—a man who the whole of the profession looks up to, not only as a scientist but also (what is more important in this connection) as an upright man, and one whose judgment would not easily be influenced in the wrong direction?"

In my opinion the answer to this question is "No." Further, it must also be remembered that Sir John was aided in his choice by the fact that the candidate was working in the Research Laboratory of the Royal Veterinary College under his direct supervision for nearly a year, which circumstance would, at any rate, give Sir John an opportunity of discovering something of the candidate's capabilities.

On reading the correspondence it seemed to me that the enquiries were not altogether free from a spirit of prejudice, and it would be interesting to know why these same enquiries were not made at the time of the first award.

"FAIR PLAY."

## AN INSURANCE COMPANY'S SCHEME.

Sir,

I enclose a letter from the Live Stock Insurance Association which, though marked "private and confidential," reached me this morning in an unsealed envelope. The scheme suggested in this letter is certainly novel, but, if put into practice, I fear all sorts of complications would arise with regard to professional etiquette.—Yours faithfully,

HAROLD MORPHEW

Burgh Heath, Epsom. Oct. 22.

*Private and Confidential.*

Dear Sir,

We beg to enclose leaflets giving particulars of a scheme of insurance against (1) the risk of death, and (2) the risk of disablement, which we introduced some years ago. We propose to extend this scheme by adding an indemnity against depreciation in value through accident, and to include, where possible, a veterinary contract to supply advice and medicines as required. Would you be prepared to undertake such a contract for twelve months on the understanding that you would be paid in advance? If so would you kindly state your terms to us—we should add a little to cover agents' commission and other expenses. We intend to give proposers of insurance the option of entering a scheme under which we would provide a sum to replace an insured horse when the insured animal became unfit for use. We shall call this our Reserve Horse Scheme, and we shall be glad to let you have particulars if you are interested.

Would you be so kind as to favour us with a reply at your earliest convenience on the subject of the veterinary contract.—Yours faithfully,

JOHN NETHERTON, Managing Director.

County Insurance Buildings, York.

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Hon. Sec. (pro tem.): Mr. F. W. Garnett, M.R.C.V.S.,

Dalegarth, Windermere

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Hon. Sec. Mr. J. Gibson, 16 Overdale Gdns, Langside, Glas

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*Hon. Sec.* A. Richardson, M.R.C.V.S., 111 Arundel Av., L'pool.  
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 Friday alternately in Feb., May, Aug. and Nov.

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*Pres.* :  
*Hon. Sec.* T. T. Jack, M.R.C.V.S., 3 Elmwood Ter, Sunderland  
*Meetings*, Third Friday, Feb., May, Aug. and Nov.

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*Hon. Sec.* Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings*, First Tuesday, March and September

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*Hon. Sec. & Treas.* Mr. J. H. Taylor, F.R.C.V.S.,  
 Grange Road, Darlington  
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 106 Clarendon Road, Leeds

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 122 St. George's Avenue, Tufnell Park, N.  
*Meetings*, First Thursday in each month, except August  
 and September, 10 Red Lion Square, Holborn, at 7 p.m.

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 37 High Street, Lowestoft  
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 34 High Street, Dover  
*Meeting*, Second Wednesday in Sept.: Tunbridge Wells

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 1291 Argyll Street, Sandyford  
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# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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VOL. XXV.

## A POINT REGARDING TUBERCULOSIS.

At the last meeting of the Lancashire V.M.A. the question of the retention of tubercular infection by pasture was mentioned, and the President, Mr. Brittlebank, stated that Prof. Delépine is now working upon the subject. It is well that attention is being given to the point, for it may ultimately assume considerable importance in connection with the eradication of bovine tuberculosis. Pasture infection has hitherto been somewhat neglected, even by veterinary surgeons: but many experienced men, including so good a judge as Mr. Brittlebank, have little doubt that, under some conditions at any rate, it takes place.

Open land, well exposed to the sunlight, may not retain infection long—the prevailing opinion is that it does not. But the conditions are very different in the case of rank, wooded pastures, and it is possible that these, when once contaminated, may retain infectivity much longer than many men have supposed. It will be difficult to obtain accurate knowledge of the question, for laboratory experiments can hardly reproduce the natural conditions, and probably any single clinical observation upon a disease so slow and insidious in its progress as tuberculosis would be open to more than one interpretation. This is one of those points upon which a great deal of evidence is necessary, and any practitioner able to supply such evidence from his own experience should do so. The subject is an important one now, and may become even more so as attempts to eradicate tuberculosis from herds become more frequent. It is possible that a clearer knowledge of the infectivity of pastures may enable us to prevent many a future disappointment in the creation of tubercle-free herds.

## VETERINARY DINNERS.

Last November, for the first time, the Central Veterinary Society invited ladies to its annual dinner. The experiment proved a complete success; and the result is that "ladies are specially invited" to this year's dinner of the same Society on Thursday next. We hope and expect, then, that the presence of ladies will henceforward be customary at the Central Society's dinners, and that other Associations will soon copy the London one.

Hitherto, if we except the "National" meetings, ladies have figured too little at our professional reunions. But our Societies exist for two purposes—for strictly professional interchange of views, and for social intercourse. And the last object can be far more completely attained if the wives, daughters, and sisters of the members join them in the one purely social function of the Association's year.

## ILIAC THROMBOSIS—"ROYAL EAGLE."

I was very interested in reading Mr. Hunting's report on "Royal Eagle," together with the post-mortem and notes by the other gentlemen.

"Royal Eagle" was under my veterinary care from the third day after the 1911 Derby until sold the following December.

Before the Derby nothing was known amiss with him; he did not run quite up to expectation, and a few minutes after the race became so lame on the near hind that he was got to his box with difficulty, appeared to be in great pain, and sweated profusely: after about an hour he rapidly improved, and was sound the next morning. The third day after he was cantered and again fell lame on the near hind, this time the lameness passed off after walking slowly a mile to his box. I saw him shortly afterwards and could find nothing the matter.

I had him cantered the following day, when he remained sound. Two days after I was informed he had another attack, which passed off in the same manner. I had him cantered the next day sharply for five furlongs, he pulled up sound; after walking about fifty yards he became apparently uneasy, commenced to sweat, severe lameness of the near hind came on, the leg was carried, and he could not move for ten minutes. After this he was led gently home, dragging the toe along the ground. By the time he arrived home, about a mile, he was walking much better. This led me to suspect iliac thrombosis.

I proceeded to examine him per rectum when I found the left artery was not beating as I thought it should. I also found, just over the brim of the pelvis on the near side, about 8 o'clock, a swelling the size of a man's hand, with ill defined edges, this was absent on the off side. A fortnight's rest was ordered, and a course of Pot. iod. After the rest he was physicked and exercised, and went on well for a short time at moderate exercise: as soon as work was commenced the old symptoms re-appeared. He was alternately rested and tried again at work, with the old symptoms gradually becoming aggravated, until he was thrown by, awaiting the "change of air" I had advised.

I examined him per rectum on various occasions, and found the artery on the left side had become occluded; the swelling persisted the whole of the time, and I was at a loss to know what it was.

One symptom I found absent I wish to point out: I could detect no difference in the temperatures of the hind legs during an attack. No lameness of the off hind occurred whilst under my care. I was asked about castration, but would not advise it.



The horse was examined in consultation by the late Mr. Lawrence and also Mr. W. G. Green: neither gentleman would risk an opinion on the nature of the swelling, but both concurred as to the condition of the artery.

WM. T. D. BROAD, M.R.C.V.S.

Marlborough.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### THE ACTION OF "PANTOPON" UPON THE DOG.

Pantopon is a preparation representing the collective alkaloids of opium in a form easily soluble in water. It is prepared by the firm of Hoffmann, La Roche, and Co., and for a long time has been used with good results by the medical profession in intestinal affections (intestinal tuberculosis, etc.), and as a calming and sleep-producing agent.

Bernhard Meyer, of Berlin, has now been making fairly extensive therapeutic use of pantopon upon the dog, employing it in the form in which it is sent out by the firm, viz., in ampullae of a 2% solution. He has used it in different cases of gastric and intestinal disease—from slight intestinal catarrh to enteritis with bloody faecal discharges—with good results. Its effects have been equally good in laryngeal and bronchial catarrh; and in one case of cerebral convulsions in a dachshund Meyer obtained complete calm with 0.5 c.c. (about 9 minims) of the 2% solution.

Meyer's usual practice was to inject a dose of from 0.2 to 0.5 c.c. (according to the size of the dog) daily till improvement took place. Vomiting, which almost invariably followed the injection, had no harmful effect upon the further course of the disease. The patient showed dulness and apathy for an hour or two only after the injection.

Often a single injection sufficed in intestinal catarrh. The preparation shows a pronounced anti-diarrhoeic effect when given per os upon an empty stomach; while, when it is given hypodermically, its sedative and hypnotic effects come into prominence.

Frequently occurring diarrhoea leading to rapid loss of strength is satisfactorily abated by pantopon without inducing an undesirable degree of constipation. This, in addition to the possibility of administering it hypodermically, gives pantopon an advantage over opium, which in most cases is too extreme in its action.

In two cases Meyer used the drug to produce narcosis for operations, injecting it in three doses given four hours, two hours, and immediately before operation. The dose used here was 0.04 grammes for medium-sized dogs. By this means Meyer induced stupor, but no loss of sensibility.

Altogether Meyer has used the preparation upon about fifty dogs, and he gives very succinctly reported clinical histories of the first twelve cases taken seriatim, adding the remark that the remainder resembled these. These twelve cases certainly support the view that the drug is a very valuable one. Eight were cases of gastritis, enteritis, or gastro-

enteritis, three being attributable to distemper, while in two the intestinal discharges were hæmorrhagic. Four were cases of laryngitis—one acute, two chronic, and one associated with distemper. In all twelve cases rapid and marked improvement followed the use of pantopon, and it would appear—though it is not directly stated with regard to every case—that all recovered.

Meyer therefore concludes that pantopon, like morphine, possesses an extraordinarily rapid sedative effect when used subcutaneously, and that this effect is very advantageous in intestinal catarrh attended by considerable straining, and in violent cough. Another important consideration is that the circulation is scarcely affected by pantopon, and the respiration is less affected by it than by morphine.—(*Berliner Tier. Woch.*)

##### A COCCIDIOSIS OF THE GOAT.

Coccidiosis of the goat has only been described on two occasions. Marotel, alone, in discovering coccidia in the small intestines of two kids, has made a complete study of the parasite. The lesions were few in number, and took the form of slight projections upon the internal aspect of the intestine produced by coccidia which were lodged in the epithelium of Lieberkühn's glands.

A. Martin, in 1911, received three fragments of intestine coming from a Tunisian kid of two months old, and now records (*Revue vétérinaire*) the results of his examination of them. The three pieces presented lesions which were identical in nature, but were unequally distributed upon each piece. The internal aspect of the intestine was strewn with a large number of small nodules or tumours, sometimes isolated, sometimes grouped, and of varying form and dimensions. In the places where they were few in number they were rounded. When they were agglomerated they became oval, triangular, with blunt angles, or even kidney shaped. These nodules projected from the surface of the mucous membrane, somewhat resembling coccidian tumours of the intestine of the sheep. Microscopical examination of the scrapings from a nodule revealed the presence of coccidia.

The microscopic lesions were very interesting, for the presence of coccidia was accompanied by important modifications of the glands, the chorion, and the submucous tissue. The epithelium could not be studied, as it had been badly preserved. The lesions of this form of coccidiosis—which may be called a nodular coccidiosis—offered two characters. One was a disposition in centres in the region of Lieberkühn's glands, which were considerably hypertrophied and dilated, with a papilla-like thickening of the submucous tissue which gave these centres the aspect of small warts or of nodules. The other was a proliferation of Lieberkühn's glands in the depths of the submucous tissue, with a tendency to the formation of a glandular adenoma. This adenoma was comparable to that seen in the liver of the rabbit affected by coccidiosis.

In examining preparations of the coccidia, Martin found stages corresponding to drawings previously



made by Marotel. He therefore regards his cases as due to the same species of coccidium as Marotel's, and proposes to retain the name of *Eimeria Arloingi*, previously given to it by Marotel, for the organism.

The symptoms which were reported to Martin as having been observed were—sudden onset of the disease, refusal of food, rapid emaciation, decubitus, difficulty in rising, plaintive cries, and death in convulsions in three days.

During the previous two years some other kids in the same shed had died with analogous symptoms, but no post-mortem examination had been made.—*Annales de Méd. Vét.*

#### "SPLINTER" FRACTURE OF THE RIB IN A MARE.

Vignard reports (*Revue Vétérinaire*) the case of a mare who, emerging precipitately from the stable, was injured by colliding with the half closed door. She sustained a wound about sixteen inches long in the right costal region. The laceration involved the skin, panniculus, serratus magnus, and the external intercostal muscles. The tenth, eleventh, twelfth, and thirteenth ribs were exposed; and the twelfth had undergone a loss of osseous substance over a length of 4.4-5th inches. There was no transverse fracture, but the spongy tissue was very visible. The pleural cavity was only protected by the internal intercostal muscles.

The treatment adopted was simple. The wound was disinfected with boric solution, and sutured at its two extremities. The central portion, corresponding to the damaged rib, was left uncovered and dressed with boric acid. Daily treatment on these lines brought about recovery at the end of a month, but a small fistula persisted for some time afterwards in the region from which the bone had been lost.—(*Annales de Méd. Vét.*)

W. R. C.

#### NORTH OF SCOTLAND VETERINARY MEDICAL SOCIETY.

The half-yearly meeting was held in Aberdeen on Saturday, August 31st. Mr. William McPherson, President, in the chair. The following members were present: Messrs. Brown, Banchory; Baxter, Elgin; Cumming, Culter; Howie, Alford; Murray, Cullen; Marsden, Banff; McVean, Craigellachie; Peddie, Dundee; Sievwright, Tarland; Kerr, Ellon. Visitor: Mr. Cameron, senr., Berwick-on-Tweed.

Apologies were received from Messrs. Anderson and Crabb.

The minutes of last meeting as they appeared in the veterinary papers were taken as read.

*New Member.* Mr. GEORGE SINCLAIR, Newmachar, was proposed by Mr. Howie, and seconded by Mr. McPherson.

*Correspondence.*—The circular letter from Mr. Stewart Stockman, Secretary to the 10th International Veterinary Congress was placed before the meeting.

The PRESIDENT warmly recommended the members each to do his best for the honour of the profession in Britain, pointing out that this was the first occasion on which the Congress met on our shores in spite of the fact that it was a British veterinarian who first suggested such a Congress.

Mr. PEDDIE ably supplemented the President's remarks.

It was ultimately agreed that each member be asked to subscribe to the fund. Those members not present to be written to by the Secretary and asked to intimate the amount (spread over three years) to him. The whole of the members present promised to subscribe half-a-guinea each per annum for the three years.

Mr. PEDDIE further moved that the Society should also subscribe to the funds. He said he was aware that the Society was not a wealthy one, as the annual contribution was small, but any sum however small, would be welcomed by the Organising Committee.

Mr. BAXTER, in seconding, proposed that the amount be three guineas, being one guinea per annum. This was unanimously agreed to.

The SECRETARY submitted a letter from the Secretary of the South Eastern V.M.A. asking for particulars of fees paid to Veterinary Inspectors by County Councils in the North of Scotland, and submitting a copy of a scale of fees which it was proposed to present to the County Council of Kent, and asking for comments on same.

The Secretary intimated that as the matter was urgent he had taken it upon himself to answer Mr. Toope's letter and to enclose a copy of the scale of fees in operation in Aberdeenshire.

#### ANÆSTHETICS BILL.

The PRESIDENT in introducing this subject said it had been sprung rather suddenly upon the profession and so far as he was aware the profession had not been consulted in the matter. He asked the members for their opinions.

Mr. SIEVWRIGHT said that his chief objection to the Bill was that in a busy practice where a large number of colts had to be operated on, was the extra time required for the chloroforming process. He had no objections to chloroforming "rigs," and he was of opinion that that operation could be better performed with the aid of an anæsthetic. Should the Bill pass into law he was of opinion that it would be the means of doing away with quack castrators.

Mr. CUMMING was of opinion that the process of chloroforming a colt would not take very long, and with practice veterinary surgeons would soon become expert. We would have to charge larger fees for the work done. He thought as a Society we should support the Bill.

Mr. CAMERON was unaware of the Bill, and said his first impression was that it was hardly worth fighting, as the Royal College of Veterinary Surgeons would not allow it to pass. Agricultural societies also would object to it. He thought that the veterinary profession should be trusted, as in the past, to use its own judgment as to what constituted a cruel operation.

Mr. PEDDIE thought we need not worry ourselves about the Bill as the Parliamentary Committee of the R.C.V.S. would very closely scrutinize it. He certainly agreed with Mr. Cameron when he saw that none of us would inflict any unnecessarily suffering on our patients. He was of opinion that some of the operations mentioned in the Bill should only be performed under the influence of chloroform, while several could quite well and quite painlessly be performed under a local anæsthetic. The Bill would certainly do away with quacks.

Mr. MARSDEN was of opinion that farmers would object to the extra fees.

Mr. BAXTER thought that we should do nothing, as agricultural societies would oppose it.

The feeling of the meeting was that the matter should be left in the hands of the Council of the R.C.V.S., who would no doubt look after the interests of the profession. The Secretary was instructed to write to the Council that we were depending upon them to look after our interests in the matter.

## NOTES ON UNUSUAL CASES.

## ENLARGED JOINTS—INFLUENZA!

Mr. HOWIE submitted the following case. The subject was a two-year-old Clydesdale colt 16·3 hands high. When called in the animal showed the following symptoms—temp. 105; pulse 70; breathing accelerated; visible mucous membranes intensely yellow; legs from hocks and knees downwards oedematous; sheath and lower part of abdomen in like condition. Diagnosis—Bilious influenza.

After the usual treatment all the symptoms disappeared except the swollen legs. In spite of all treatment the swellings persisted until at the knee, hock, and fetlock joints. The enlargements assumed the consistency of bone. Fomentations, blisters, Iodine, and Iodides externally and internally were tried, without effect. Except the febrile period, the colt was never stiff nor lame. He was broken to harness and worked regularly, but still the enlargements persisted.

This was in August, 1909. The peculiarity of the case lies in the fact that every summer in August, this horse has had an exact repetition of the whole train of symptoms. The result being that after each successive attack the joints mentioned gained in size and have remained enlarged. The horse has worked regularly all the time except at the acute stage, and has never been lame. The only circumstance observed was that on each occasion the rye grass in the fields was ripe. What is the disease? What treatment do you suggest for the enlarged joints.

None of the members were able to name the disease nor had any of them seen a similar case. Some considered it to be an obscure form of hepatic disease.

Mr. KERR said that he had had a good deal of influenza in his district, and drew the attention of the members to a persistent form of lameness which occurs as a sequel. It appeared mostly in the hind limbs, and shifted from one leg to the other.

Most of the members had seen similar cases, and were of opinion that the causes were of a rheumatic and nervous nature, and that only time—sometimes a long time—would effect a cure.

## DERMOID CYST.

Mr. McVEAN exhibited a completely formed tooth which he had recently removed from an abscess over the temporal bone under the ear of a horse.

Experiences were related of similar cysts having been encountered in such parts as the tips of the ear, testicles, etc.

## REDWATER.

Mr. CAMERON drew attention to the annual report of the Veterinary Department of the Board of Agriculture, especially regarding the report on redwater in cattle. He asked: Is it still the case that there are two forms of redwater? Is the kind of redwater which is so prevalent in the North of Scotland in cows after calving in certain seasons due to tick infection.

Mr. CUMMING was of opinion that parturient redwater is due to tick infection, instancing outbreaks in which several cows were attacked, the cows having been grazed the previous summer in the neighbourhood of marshy land.

Mr. BROWN said that he held very decided opinions regarding redwater. He was of opinion that there were two forms. 1st. "Darn" or tick infected redwater. 2nd. Parturient redwater. He had microscopically examined the blood in both forms. In the former he never failed to find the pyroplasm, while in the latter he had not yet succeeded in discovering it. He would like members to send him samples of blood from the cases encountered in their districts, as "darn" occurred only in certain localities.

## MALFORMATION—INCONTINENCE.

Mr. SIEVWRIGHT gave particulars of a case of a yearling filly which had suffered from incontinence of urine which dated back to its birth. There was a continual dribbling of urine from vagina, so much so that the hips and legs were incriminated and hairless. Along with the urine there was also discharged a large quantity of sabulous material. For a time he regarded the bladder as the seat of the trouble, and tried every sort of acid and alkali treatment without success. During the early stages manual exploration was impossible owing to the smallness of the parts, but after the foal had developed he examined the parts per rectum and vagina when a remarkable train of symptoms was discovered. 1st. The bladder was found to be absolutely empty and contained no sabulous matter. 2nd. He found the os dilated, and on introducing his finger found sabulous material in the uterus. His conclusion was that the ureters instead of opening into the bladder led into the uterus, hence the incontinence. The sabulous material he attributed to decomposition of urine and formation of uric salts.

The opinion of the members present was that it was a case of malformation, and that the animal would do no good.

## MORTALITY OF CLYDESDALE FOALS.

Mr. McPHERSON asked the meeting what was the cause of the death of so many pure Clydesdale foals at, or shortly after, birth. The foal did not seem to suffer from any disease, but merely a form of debility. It refused to get up at the usual time, would not suck, and just slept away until it died. He was inclined to attribute this mortality to in-breeding, which was notorious in the case of Clydesdales.

The members generally expressed the same opinion, or at least were unable to point to any other cause.

Arising out of this Mr. Brown asked, What is the earliest time after the birth of a foal that you will find symptoms of navel ill.

Several of the members said they had seen it immediately after birth, and were of opinion that the foal must have been infected *in utero*.

Mr. Brown agreed, and said that that was rather a blow to the generally accepted theory that navel ill was due to infection through the navel after birth. He further strongly recommended the use of antistreptococcic serum (polyvalent) as a preventive of navel-ill, one ampule for a dose.

Mr. CUMMING mentioned a case which he had in hand at the present time. An eight-year-old Clydesdale mare in the spring developed a large swelling under the saddle on one side. With repeated fomentations the enlargement dissolved, but reappeared in the end of June in an aggravated form. It now extended from the withers to the loins. It was painless, and in shape like a huge sausage. He had blistered it, and had seen it the previous day, but there was no improvement.

Mr. Cumming was advised to try an exploratory operation in order to discover the nature of the swelling, as it was probable that there might be a pus centre, and that the swelling might be due to that.

## ELECTION OF OFFICERS.

The following office bearers were appointed for the next year:—

*President*.—Mr. MARSDEN, Banff.

*Vice-Presidents*.—(Senior) Mr. MARSHALL, Aberdeen. (Junior) Mr. CUMMING, Culter.

*Hon. Sec. and Treas.*—Mr. HOWIE, Alford.

*Council of Management*.—Messrs. Thomson, Hepburn, Anderson, Crabb, McPherson, Brown, and Sievwright.

The business having been concluded, a hearty vote of thanks was accorded to the President, after which the members lunched together in the West End Café.

GEORGE HOWIE, Hon. Sec.

SOUTH DURHAM AND NORTH YORKSHIRE  
VETERINARY MEDICAL ASSOCIATION.

The annual meeting and dinner was held in the Imperial Hotel, Darlington, on Friday, September 27th. Owing to the unavoidable absence of the President, Mr. W. Awde, the chair was occupied by Mr. C. G. Hill, Darlington, one of the Vice-Presidents. There were also present Messrs. G. R. Dudgeon, Sunderland; P. Snaith and A. C. Forbes, Bishop Auckland; W. H. Blackburn, South Hetton; P. B. Riley, Barnard Castle; and J. H. Taylor, Darlington. Mr. W. J. E. Mackenzie, M.R.C.V.S., Stockton-on-Tees, was present as a visitor.

It was proposed by Mr. Dudgeon, seconded by Mr. Forbes, and carried unanimously, that the minutes, as they had appeared in *The Veterinary Record*, be taken as read and confirmed.

Mr. P. B. RILEY, Barnard Castle, was elected a member of the Association on proposition of the Secretary, seconded by Mr. Dudgeon, and carried unanimously.

Mr. HILL, in welcoming Mr. Riley, said that he was very pleased that he had become a member of the Association, and hoped that he would attend the meetings regularly, and have pleasure in doing so.

Mr. RILEY, in reply, said that he was very pleased to become a member, and hoped to attend all the meetings.

## CORRESPONDENCE.

Messrs. H. Peele and E. H. Pratt sent word regretting their inability to be present.

Mr. W. Awde wrote from Newcastle-on-Tyne, where he was at present stationed, on account of being engaged in dealing with foot-and-mouth disease, that he much regretted he could not be present.

A letter, dated June 21st, was read from Mr. Theo. C. Toope, Hon. Sec. of the South Eastern V.M.A. enclosing a copy of the present and suggested scale of fees paid to veterinary inspectors in the County of Kent, asking for an opinion on them after comparison with those in the district covered by the Association, and desiring a copy of the fees in force in the district.

The Hon. Sec. stated that as Mr. Toope desired a reply by July 16th, he had written to the President, Mr. Awde, and after receiving some particulars from him had replied to Mr. Toope giving him the information asked for, and in doing so had informed him that the members of the Association had often had the question of fees paid to veterinary inspectors mentioned at the meetings, and that they were all of the opinion that they were very badly paid for their services, and would help in any way they could to raise their fees.

Mr. SNAITH said that the fees paid by the Durham County Council were hardly worth working for, and had often seriously thought of giving up his appointment as an inspector. He had frequently had his account questioned and returned with a red pencil mark on it for alteration, when he had only charged the proper fees, and he had now made up his mind that if it occurred again he should resign his appointment.

Mr. BLACKBURN thought that the North Riding County Council paid better fees than the Durham County Council, but even then he did not think the fees were what they ought to be.

The Hon. Sec. replied that the Durham County Council allowed 10/6 per visit, after going two miles, and 6d. per mile each way. Each visit, however, must occupy four hours. The North Riding County Council allowed 5/- for the first hour and 2/6 each subsequent hour, if driving 1/- per mile one way, and if using the railway third class fare.

It was pointed out that if an inspector of the North Riding County Council was away from home, attending a sheep fair for instance, from 9 a.m. to 5 p.m., all he

got was 22/6 plus railway fare. This fee, when one considered that he left his practice unattended for so long a time, was very small indeed.

It was unanimously agreed that much better fees ought to be paid to veterinary inspectors of County Councils, and hopes were expressed that the efforts of the South Eastern Veterinary Medical Association might be attended with success.

The circular letter from Mr. S. Stockman was read calling the attention of the Association to the Tenth International Veterinary Congress which is to be held in London in 1914.

A general discussion took place with reference to Mr. Stockman's letter and all the members spoke favourably of helping, and it was agreed that they should individually think the matter over and let the Secretary know later on what they were prepared to do.

## SPECIMENS AND CASES.

## SCAPULA—FRACTURED CARILAGE.

The SECRETARY showed the scapula of a horse with fracture of the cartilage of prolongment, new bony formation surrounding the whole bone, and ulceration of the articular surface. The horse was kicked about the lower third of the antea-spinatus fossa and when he was called in about the middle of July last there was a wound about three inches long where the kick had been, the horse was practically on three legs, and had been in this condition nearly a week, turned out in a field. The case seemed a hopeless one, but as the animal was only seven years old the owner wished it to be treated.

The horse was put into slings and the wound explored, with the result that a fracture could be distinctly felt. The wound was treated in the usual way, it had a healthy discharge and gradually healed. The horse gradually commenced to put a little weight upon the limb, his appetite was good and his general condition was as satisfactory as one could expect.

In about a fortnight a swelling appeared about the middle of the posterior border of the bone and an abscess formed, which was opened and a large quantity of pus liberated. About this time one of the ropes attached to the cross bar of the slings broke during the night and the owner found the horse down in the stall in the morning. He seemed worse after this and after putting him in slings again, and trying him another week and no improvement taking place, the horse was destroyed.

On removing the scapula a large cavity was found on its internal face, the walls of which were formed by the new growth, and pus had found its way from there into the articular surface.

Probably the fracture of the cartilage of prolongment had taken place when the horse fell out of the slings, and the specimen was interesting in showing to what an extent new formation could take place in so short a time, and how ulceration of the articular surface could take place when the original injury was so far away from it as this was.

## SUB-LUMBAR GROWTH IN A FILLY.

The SECRETARY also showed a growth which had been removed from the sub-lumbar region of a two-year-old carting filly. The filly had been turned out to grass for the summer and was noticed to be dull and not eating, and clots of blood had been seen in the field which the owner thought she had passed in her urine.

On examining the patient she was seen to have a tucked-up appearance, the visible mucous membranes were blanched, the pulse was weak and about 70 to the minute, temperature 104 F. She occasionally ground her teeth, was frequently passing small quantities of urine which was, however, clear, and when she got up she seemed to be weak across her loins. She was placed in a loose box and had the chance of anything she liked

to eat, and was treated with tincture of hyoscyamus and bicarbonate of potash, iron tonics, and stomachics. She did not eat much for a few days, and then she gradually commenced to take grass, oats, and bran. All the time she was under treatment not the least sign of blood could be found, and her urine was always clear. She commenced to improve nicely, voiding urine less frequently, the weakness of her loins disappeared, and her pulse and temperature became normal, and after being under treatment about three weeks the filly appeared to be quite well again, and was turned out to grass. She was seen every day by her owner and appeared to be in perfect health for about a fortnight, when clots of blood were found in the field near where she was standing, and she was in the same condition again as when we first saw her. We were again sent for.

She was now found to be in a hopeless condition. She was down in her box, breathing heavily, pulse small and weak—about 80 to the minute, and large clots of arterial-looking blood, many in number, were on the floor of the box. The visible mucous membranes were blanched, and she did not look like living long. A dose of adrenalin chloride solution was given hypodermically, but with not much confidence as to it doing any good. This was about noon, and the owner was to send word if she was living in the evening. Word came about six o'clock that she had not passed much blood during the afternoon, and she seemed easier.

When she was visited about an hour afterwards she was found standing eating grass, and to a casual observer she appeared alright. On closer examination membranes were still blanched, pulse very weak, and whilst watching her she voided urine which was blood red, and afterwards as much clotted blood as would fill a hat came away. Another dose of adrenaline chloride solution was given, but the filly continued to pass large quantities of blood coloured urine and clots of blood, and during the night she died.

On post mortem the next day the growth now shown was found, posterior to and in connection with the kidneys, and the muscular tissue of the carcase presented the pale bloodless condition one would expect to find in an animal which had practically bled to death.

The growth was fibrous in structure and received large branches from the posterior aorta, and had in the middle of it a large cavity filled almost with a laminated blood clot. A large vessel passed from this to the left kidney, the pelvis of which contained a clot of arterial blood, and the whole structure of this organ contained cavities filled with blood. It appeared as if the escape of blood had been from the aorta into the growth, from there to the kidney, into the ureter, and thence into the bladder. It appeared possible that the laminated blood clot had formed when the filly was first noticed to be unwell, and the bleeding had stopped in consequence, but that later on, when the filly had been turned out to grass, it had given way, hence the recurrence of the bleeding.

One would hardly expect to find such a growth in an animal so young, and so far as the owner knew she had never had an injury.

#### THICKENING OF BOWEL—REDUCTION OF LUMEN.

Mr. SNAITH said that perhaps the members would recollect that on a previous occasion he had mentioned that he made post-mortems and found the lumen of the bowels much reduced, due to the muscular coat being thickened from a quarter to half an inch. Recently he had come across another such case in a pit pony.

The pony had been ill during the night from colic, and when he visited it in the morning he found it sitting on its hind quarters like a dog. He gave a dose of physic and other medicines, and in a few days the pony seemed alright, and was turned out to grass.

About a fortnight afterwards the pony died, and he

made a post-mortem. He found a ruptured stomach which had been ulcerated in the region of the rupture, the lumen of the bowels was much reduced, and the muscular coat thickened quite half an inch. On the outside of the bowels were black blotchy spots, the size of a five shilling piece. His idea of the rupture of the stomach was that probably the reduction of the lumen of the bowels had caused distention, and the rupture had taken place at the weakened part where the ulceration was.

#### RUPTURED DIAPHRAGM.

Mr. MACKENZIE said that recently he was called to make a post-mortem on a horse with no previous history of illness. It had been out drawing a gun carriage the previous day, and was found dead in the morning. He found the splenic artery ruptured, and a badly ruptured diaphragm. It seemed hardly possible for these to have taken place the previous day during work in the gun carriage, although he might have sprained the parts then.

#### TRAUMATIC PERICARDITIS—DELAYED RESULT.

Mr. HILL said that the members might recollect that a few weeks ago there was an account in *The Veterinary Record* of an action brought to recover the price of a heifer by the man who had bought her. It was contended that the cause of death had been in existence when the heifer was purchased some months previously, but the purchaser lost his case. To illustrate how the cause of death could be there at least six months before death, he had an interesting case recently.

Six months ago he was called to a cow suffering from gastric tympany and indigestion. He rather suspected at the time that a foreign body, such as a nail, was the cause, but the case submitted to treatment, and the cow went on alright until a week ago, when during his absence from home his locum tenens was called in, as the cow was taken ill again and died. On post-mortem a piece of wire was found close to the heart sac, and all the well known appearances of traumatic pericarditis were present.

#### EVERSION OF VAGINA AND RECTUM—THICKENED BOWEL.

He had recently had an interesting case of eversion of the vagina and rectum in a carting filly. On first seeing the case the vagina was everted, which was returned and a West's clamp applied. The patient had a good night and strained very little, but the next day the straining recurred and the rectum came down. This was returned and a ligature placed across the anus, and all went on well for a few days, the filly taking gruel and milk. She now commenced to strain again, with the result that the lips of the vulva were torn and the vagina and rectum were both everted, and death took place.

On post-mortem the lumen of the bowels was much reduced in size, there being hardly room for the little finger, and they presented much the same appearance described by Mr. Snaith in the case he had mentioned, for not only were the bowels thickened, but they showed the same black spots on their peritoneal coat.

Mr. SNAITH said he could call to mind another case where the bowels were much reduced in size. A cow had constipation, but could never be purged, no matter what was given her. The owner thought he would try his hand and gave her an extra strong dose of purgative medicine—and then sent for him to see her.

The abdomen was very much enlarged and she looked as if she might have dropsy, but on further examination he found the swelling was due to fluid in the stomachs. On post-mortem nothing abnormal was found except that the bowels were much thickened, owing to fibrous tissue, and their lumen was very small indeed.

The **TREASURER** presented the annual financial statement, which showed that the Association had a balance in hand of £8 7s. 9d.

It was proposed by Mr. Snaith, seconded by Mr. Hill, and carried unanimously, that the balance sheet be adopted and the accounts paid.

It was proposed by Mr. Forbes, seconded by Mr. Blackburn, and carried unanimously, that the annual subscription of £2 2s. be sent to the Victoria Veterinary Benevolent Fund.

#### PRESIDENTIAL ADDRESS.

By Mr. W. AWDE, F.R.C.V.S.

Gentlemen,—I appreciate very much the honour you have done me by re-electing me your President for the ensuing year, and am extremely sorry that I cannot be with you to-day. I hope that that my absence will not affect either the attendance or the success of your meeting.

No doubt, like myself, you are anxiously awaiting to see what is the result of the Commission now sitting with regard to the veterinary services of this country and the training of men for such appointments, and hoping that the profession will reap some benefit from their recommendations. In the first place it seems to be probable that they will recommend that more men should be engaged to devote their whole time to the service and be controlled by the Board of Agriculture in much the same way as the Local Government Board controls the appointment of medical officers of health. The appointment being made in the first instance by the local authority, and one of the conditions being that persons holding such should be properly qualified veterinary inspectors, and that they shall have attended a post-graduate course of instruction and if necessary pass some special examination for this particular branch of work. Most likely the Board of Agriculture will pay some portion of the salary and have a right to approve a man's appointment to or dismissal from his position.

The use of the motor car and mechanical haulage still reduce the income of the veterinary profession, particularly of those members who reside in towns. What a difference it has made! In James' Street, Harrogate, for instance, where at one time you could see dozens of carriages any day, and some of the finest horses anywhere, if you go there now in the height of the season you will hardly see anything but motor cars. If you are lucky you may see a decent pair of horses, but it is quite the exception to do so.

Good horses are still as dear as ever, but the difficulty is to find them, as fewer people now breed them. I understand that horses are being used in London in the park and for functions more than they have been for the last two or three years, but am afraid they will never be used to the same extent as they were previous to the introduction of the motor car. For long distances and speed there is no doubt the motor car is more economical than horses, but the latter are far cheaper than the former for short distances.

The education of the veterinary student seems to be attracting considerable attention just now in the veterinary papers, and one writer suggests the extension of the present period of study. I think this might be obviated by allowing the student to see practice in the other year instead, because it is hardly possible for him to see anything like everyday practice within the College walls.

The efforts of the Board of Agriculture to stamp out swine fever have not met with the success which was hoped for, but they have now a much tougher job in hand, and which seems likely to cause them some trouble before it is finally stamped out. I refer to the introduction of foot-and-mouth disease which was

brought over from Ireland to Liverpool in June, 1912, and has been causing trouble ever since in several different districts. At the present time there have been over 80 outbreaks of the disease confirmed, and about 600 animals slaughtered as having been affected with the disease. In Northumberland and Durham alone there have been 33 outbreaks, so that in the North of England we have had more than our share of the disease, while Ireland at the end of last week has had 27 outbreaks and 258 animals attacked.

I am still hoping that we have not heard the last of the Tuberculosis Bill, which was introduced by the Local Government Board and withdrawn, but that we shall yet have compulsory notification of the disease in animals, and that all cows giving milk for human consumption will have to be periodically inspected and their udders examined. By the introduction of the National Health Insurance Bill the prevention of consumption is being attempted, it would therefore appear that it is only a question of time before the limitation of the disease in the cow must be tackled, particularly as her milk is used to so large an extent in the diet of children. A pure milk supply is therefore essential, and will have to be insisted on. It seems to me that it would be very little use to provide sanatoria for the treatment of consumptives and allow free trade in diseased milk. It seems like starting at the wrong end, as prevention is better than cure at any time.

I regret that time will not permit me to write more, and hope that you will excuse the brevity of my address and also its scrappy character. I hope that we shall have a successful year; that our numbers will increase, and that the Association will be in a better position than ever at the end of my term of office.

After the Presidential Address had been read by the Secretary, it was agreed that the vote of thanks to the President be left over till the next meeting.

Mr. SNAITH wished to propose a vote of thanks to Mr. Hill for his conduct in the chair. This was seconded by Mr. Riley, and carried unanimously.

The members then dined together in the hotel.

JAMES H. TAYLOR, Hon. Sec.

### Royal College of Veterinary Surgeons.

A Special meeting of Council was held at the College, 10 Red Lion Square, W.C., on Tuesday, October 22nd. Present: Messrs. Banham, Barrett, Col. Sir F. Duck, Mulvey, Price, Maj.-Gen. Pringle, Roberts, Prof. Shave, Slocock.

*Chairman.* It was resolved that Mr. R. Roberts, being a Vice-President, be elected to the chair.

*Apologies for absence.* The Secretary announced that apologies for absence had been received from the President, Messrs. Abson, Burt, Carter, Clarkson, Dunstan, McKinna, Mason, Shipley, Maj.-Gen. Thomson.

*Minutes.* The minutes of the previous special meeting were read and confirmed.

*Alteration to Bye-law.* On the motion of Mr. Mulvey, seconded by Mr. Barrett, it was resolved that Bye-law 57, as amended at a special meeting of Council held on Oct. 11, be confirmed as follows:

57. The examinations for the Diploma of Membership shall be held in each city in which there is situate an affiliated veterinary school twice during each year, viz., in July and December. At the quarterly meeting of Council held in July in each year the Council shall fix the date of the Membership Examinations to be held in the following December and July.

*Addition to Schedule I.* On the motion of Mr. Mulvey, seconded by Prof. Shave, it was resolved that the following addition to Schedule I, passed at a special meeting of Council held on Oct. 11, be confirmed:—

University of Bristol. Matriculation Examination (Certificates to include the required subjects).

#### Action against a Farrier at Cork.

At Cork Borough Sessions on Tuesday, September 24th, before His Honour the Recorder of Cork, K.C., John Spillane, 4 Mayville Terrace, car owner, sued Eugene McSweeney, for £30 loss, the damage sustained by the plaintiff owing to the negligence of the defendant, and in consequence of which negligence a mare the property of the plaintiff was so injured that she had to be destroyed.

Mr. B. C. Galvin, solicitor, appeared for plaintiff, and Dr. H. A. Wynne, solicitor, represented the defendant.

Mr. Galvin said that plaintiff was a jarvey and the defendant was a farrier. In July last plaintiff and defendant were at Dunmanway Fair, and the former having then in his possession a grey mare for which, 12 months before, he had paid £22. The mare stood over on one of the hind legs. This did not interfere with her working, but it was against her appearance. They talked about the matter, and the defendant said it would be a good thing to blister the hind leg and remove the blemish. The mare was taken into the defendant's place. Plaintiff held the mare and defendant's men applied the blister first to the hind leg in which the blemish was and then the other hind leg. When that was performed the defendant took an iron, put it into the fire, heated it, and fired the legs. Blisters were applied to the fore legs and then fired. Defendant got a shovel and heated it and placed it round the two fore-legs, in one of which there was a little splint. When the operation was over defendant asked plaintiff to take the mare and put her on grass. A few days after plaintiff saw the horse at Vernonmount, and she was unable to stand. A few days after the mare was in a dying condition and had contracted septicaemia, or blood poisoning. She was brought on to the city and destroyed, on the advice of Mr. Hoare, V.S. Though the plaintiff asked that a veterinary surgeon be called in, the defendant said not; and if a surgeon had been called in things would not be so bad.

The plaintiff said he never said anything to the man. He only held the mare's head and the defendant punched two of its legs. He never said anything about punching. He thought that the defendant was doing everything all right. He met defendant at Dunmanway fair and he told him that his (complainant's) horse was lame, and we said "well, we will have it blistered."

Mr. E. Wallis Hoare, F.R.C.V.S., was sworn and stated as follows:—

Mr. Galvin: You were called in, Mr. Hoare, by Spellane to see the mare in the early part of August?—Yes, on the 8th of August.

Now describe to His Honour in what condition you found the mare.—She was in a dying condition. The skin was sloughing on the four legs, and the legs were ulcerated; the skin was also off the front fetlocks. The skin was sloughed up to the knee in the fore legs and up to the hocks in the hind legs. The legs were all swollen and issuing pus.

Was the animal in great pain?—Yes, in great pain.

Did these affected parts appear to be in a septic condition?—Yes, in a septic condition.

Did you give instructions as to the dressing of the animal?—Yes, I did.

What did you find on the 12th?—The sloughing had extended more deeply and the mare was suffering from septicaemia, and I then advised that she be destroyed.

What in your opinion did the conditions you found existing result from?—I, of course, had to go on the history of the case. In the first place no veterinary surgeon would blister four legs of a horse at the same time—the fore legs and the hind legs. It was condemned both in practice and theory. In the next place the blister was applied to the heels, which is never done.

Yes, the heels are never done?—No. In the next place a red hot shovel should not be applied or put near the legs as it scorches the skin.

Now about the firing iron, you heard that described?—Yes, I did.

Is that treatment recognised treatment in such a case as this?—When a horse runs lame from splints the pointed iron is used. The pointed iron is used directly over the splint. There is no practitioner who would blister a horse on all the legs and then fire the splints.

And unless this animal was lame from splints you would not think it necessary?—No. Every posting horse in Cork has got splints.

The Recorder: They appear in young horses at three and four years?—Yes, but it is the exception for aged horses to go lame. The appearance is nothing. Every horse has them practically. I rarely come across a horse that has not got them.

Ought blisters to be applied to all the legs?—No.

Ought they be applied anywhere except to the affected parts?—No, your Honour. In fact it is gross cruelty to blister the fore and hind legs at the same time.

Mr. Galvin: What would be the action of the red hot shovel being used in the way described here—brought round and round the blisters?—It would interfere with the vitality of the skin. The blister itself has a tendency to interfere with the vitality of the skin, but the red hot shovel adds fuel to the fire.

The Recorder: Is the effect of the blister to extract some matter from within?—Well, it is used for different purposes—for affected tendons or a diseased joint. In splints, point firing overcomes the lameness by section of the periosteum.

Mr. Galvin: You heard the evidence given as to the firing of the fore legs and the rubbing in of the blister, and the application of the red hot shovel. Was that in your opinion proper treatment?—It was very improper treatment and gross cruelty to the animal.

And do you ascribe the conditions you found existing to that treatment?—Most certainly I do.

From the time the sloughing appeared was there, in your opinion, any steps taken to check it by antiseptic treatment?—Not that I could see.

When you ordered the horse to be destroyed had you formed the conclusion that in the condition you then found her she was useless?—Yes, hopeless.

It was cruelty to permit her to live?—Yes, it was cruelty to permit her to live.

You knew the mare?—Yes. I have often driven with her.

Tell the Recorder if you ever noticed any lameness in her?—Nothing in the slightest. The last drive I had was up to the barracks.

Of course you would know, Mr. Hoare, if she was going tender?—Yes, and I should not drive with a bad one either.

You knew the mare—she used to stand on the South Mall stand?—Yes. She was a very good posting mare.

Tell us what is the correct expression—"standing over," "knuckling over," or "leaning over," which is it?

The Recorder: What is that?—It is a very common thing in the hind leg where a certain amount of weakness exists in the fetlock joint it is "knuckle over."

Mr. H. T. Wright (Clerk of the Crown and Peace): Then Dr. Wynne is right after all.



Mr. Galvin : This knuckling over does not injure an animal ?—It is merely a disfigurement in appearance.

You say this treatment was nothing short of cruelty ?—I call it cruelty.

Cross-examined by Dr. Wynne : What do you say the animal died of ?—The mare contracted septicæmia from sloughing of the skin. The injury to the animal resulted in ulceration and sloughing of the skin, and she then contracted septicæmia.

Septicæmia you say was the cause of death ?—Yes.

I want to know the various ways in which that can be set up ?—Septic matter getting into the wound would cause it, especially if the animal is in a low state of health. The absorption of septic pus from the injury, extensive firing would cause it if sloughing resulted.

Have you known in the ordinary course of your practice as a veterinary surgeon of septic matter being brought to a wound by flies ?—They do carry septic matter.

If, for instance, there is a dead bird in the same field as the animal, flies will pitch on that bird and carry infection to the wound. That would be a very likely cause would it not ?—Yes, if you have a very open wound or extensive destruction of the skin—but they are only an accessory cause.

I may take it that is a common way of causing septicæmia or blood poisoning ?—I would not say a common way, more especially in the case of an already septic wound.

Might I give a further cause by a dirty field ?—That depends on the surroundings. There are some horses which are more likely to get septicæmia than others. Grass was the safest place.

What about bogs ?—I have had horses blistered and put out on bogs and they are all right.

Won't you be more likely to get it in a bog than in a stable ?—No, there is more dirt in a stable.

You have never come across a case of septicæmia being set up by external dirt ?—I have not said that. You have asked me as between the dirt of a bog and of a stable. The average stable has more dirt in it than a bog.

Answer my question and don't be such an advocate. You will get dirt in a bog ?—Certainly, and so will you get it in a stable.

You will get it in a courthouse ?—Yes, that is so. (Laughter).

How long, Mr. Hoare, would you say that the animal was suffering from septicæmia ?—When I saw her, do you mean ?

Yes.—I should say that actually septicæmia was not long in existence, but the injuries to the skin had been a long time in existence—that is the sloughing.

If you would not mind, would you tell me the extent of the sloughing ?—Well, each of the heels, the two fore and two hind legs had sloughed.

How high did it extend up ?—It extended to the hocks in the hind legs and to the knees of the fore legs—sloughing of the skin and underlying ulceration, the result of an acute irritant.

Camphorated oil—do you think that good treatment in a case like this ?—I don't see any harm in it, because the camphor in the oil was small and would do no harm.

Was it good to leave the mare out at night on such land ?—With the treatment that she was subjected to it was not a good thing.

Do you think we can be certain about these things ?—Well, I am certain about that anyway.

Do you know Mr. McSweeney ?—No.

Because you seem to be very bitter ?—I have never seen him as a matter of fact.

The Recorder : In the conditions you would not think that it was necessary to blister like this ?—Not at all.

A seven-year-old where the splints had not any effect ?—No, sir.

You did not think it necessary ?—No. If the mare was brought to me and the owner asked me to do so, I should have refused point blank. I don't think there was any necessity for doing more than one leg.

I understand blistering the one leg, but I cannot understand why the two were blistered ?—I cannot say. I should have refused to do it.

But as regards the foreleg, do you say the blister was necessary ?—Unnecessary altogether. No veterinary surgeon would think of blistering all the four legs, then firing them and putting a red-hot shovel to them.

The blistering was wholly unnecessary, you say ?—Wholly unnecessary.

At a later stage of the hearing Mr. Hoare was recalled by the Recorder and further questioned.

The Recorder : Might the irritation to the skin from the treatment cause her to tear herself with her teeth ?—That would depend on the time, the degree of irritation, and the damage to the skin, but that should not result from an ordinary blister four days afterwards.

Sometimes they apply the teeth to the blister ?—Yes, but after four days the effect should have passed off. We never tie them up for more than twelve hours. They are left quite alone then. If we put them on grass we don't tie them up at all ; we leave them out on grass immediately afterwards.

Did you say the near hind and fore legs were more injured than the others ?—There was not much to choose between the legs. As regards the firing, I cannot say. The whole of the skin had sloughed from both fore legs as well as from the hind. No one could say whether it was fired or not the injury was so extensive. The whole skin was off, and all four of the heels were raw.

Was it raw down on the hind heels ?—Yes, it was worse than on the fore legs. There was nothing to choose between the legs, but if any one was worse it was the near hind one. The tendons were almost exposed from the injury.

It must have been from blistering ?—There was nothing else to cause it.

I mean to say more than from firing !—The firing helped the sloughing in front. The puncture firing which was done injured the skin, considering the very severe blister that was applied.

How would you deal with that matter. You see the operations were carried on on the 22nd July, and suppose now that the legs were clean and persons who saw them on the 28th and saw them as they actually were, free from any gathering or dirt and so on, would that fact—if they did in fact look like that—would that alter your view ?—You may see no injury for a week. It is like a burn. It may not show much signs for a week and then comes off in a piece.

Dr. Wynne : How long after the blister would you expect the sloughing to show ?—It varies, and depends on the thickness of the skin and the strength of the irritant.

Dr. Wynne : My case is, it cannot possibly be due to a blister in consequence of the time. It did not show itself until the 28th. I would like to know what time he says.

The Recorder : He says a week.

Mr. Hoare : At least in a week. If professionally examined it could be seen earlier. One would not observe it looking over a fence, the skin might be dead.

Dr. Wynne : You say it would not appear to a man looking over a fence, but to a man like Hyde, a very knowledgeable man, would it be noticeable ?—The fact of the skin being dead the sloughing would not be very easily seen, and Hyde never put his hand to the horse's legs.

The Recorder: It appears to me very extraordinary -- I am not prejudicing the case -- I mean to say all this blistering on the hind legs, and then both fired, and blistering the fore legs for splints. All these operations appear to me very strange. What I want to know is this -- supposing the blistering had been confined to one of the legs then you would have no objection Mr. Hoare?

--No, sir, none.

Now take the hind leg -- the near hind leg all that was done to that was blistering? -- And the red-hot shovel scorching it.

The healthy leg was just as bad as any of the others? -- There was nothing to choose between them, except that the firing was done on the inside of the fore leg, and probably close to the bone.

I suppose the firing ought to have been done, if it was done, on the shin bone where the splint was showing? -- Of course it would be all right if the severe irritant had not been applied, no sloughing of the skin would have occurred.

All the legs showed the same symptoms. Whatever was done if done to the near hind leg it would have shown the same thing? -- No, if the horse had three other legs sound to stand on it would not lie in that condition. She was not in a condition to stand. She should lie down.

If it were done to one leg such evil results may not, probably would not, result? -- Exactly, because she would have three sound legs to rest the body on.

Dr. Wynne: Is it not septicaemia that the horse died of? -- I say, and I repeat it --

Let us keep to that. You say she died of septicaemia? -- You must let me explain my answer. It was the final cause of death; septicaemia led to by sloughing of the underlying structures, the tissues becoming putrid from want of blood and loss of vitality.

Is not all this blood poisoning? -- It is a case of blood poisoning.

#### THE DEFENCE.

Dr. Wynne, for the defence, said Mr. McSweeney had carried on business for many years, and was well known as a careful farrier, one of the most careful in the South, against whom no charge of any kind had been brought. It was not once but several times that Spillane said he wanted his horse blistered, and McSweeney would tell the Court that he sometimes did that kind of thing for jarveys when they wanted it done. He (Dr. Wynne) asked was it likely that unless the owner asked that he looked on at the operation without making any prospect? He did it at the request of the owner, and was not paid for it. The only charge he made in respect to the operation was the charge for the blister, the amount which he (Mr. McSweeney) had himself to pay to Messrs. Blair, who compounded it. The plaintiff was totally mistaken in thinking that the horse was fired in any but the near fore leg. The case for the defence was that the thing occurred owing to the negligence of the plaintiff in putting the horse on a soft, boggy, swampy place. If it occurred as a result of the blistering, the injury would have shown long before it did, and in all probability it arose as a result of the septic matter which attacked the horse in this boggy place.

Mr. John F. Healy, M.R.C.V.S., was sworn and stated as follows:

Dr. Wynne: You are a veterinary surgeon practising in Middleton, Mr. Healy? -- Yes, sir.

Do you know as a matter of fact, and is it common knowledge that it is the custom for blacksmiths at times to blister horses? -- Farriers can blister horses.

I believe even hackney car drivers themselves blister horses? -- I should think they do.

The Recorder: And carriers, I suppose? -- Yes. You leave the blister with instructions to rub it in for five minutes and tie the animal up for 24 or 48 hours.

Dr. Wynne: Of late years I believe veterinary surgeons don't like to blister all four legs of a horse at the same time? -- It is not a general practice.

Only in late years, I believe? -- Yes. It could be done by any man using a slight blister. If you use a strong blister you cannot do it to the four legs.

I want to find out why. If you use a strong blister and do the four legs what will happen? -- You will have absorption of the blister and strangury will follow.

Suppose in reference to this case that this horse suffered from the effects of the blister on that day, when would you expect the horse to show evil signs? -- She should show in three or four days time.

As a veterinary surgeon you say that? -- Yes.

The Recorder: Tell me as to the sloughing of the skin that evidently occurred. Supposing that was due to the original application of the blister, ought that to have shown itself within four days? -- It would take two more days. About the sixth day you would have the skin sloughed.

Might that go on for some time? -- It would remain. If there was no irritation to the skin it would not fall off until the other skin would come out and elevate it. If any irritation got up the whole might come off.

Dr. Wynne: What would you expect if the horse was blistered too much; would strangury follow? -- Decidedly.

Within what time? -- It would occur within 48 hours after.

That would be the first thing you would expect? -- Yes.

And the fact that the horse was right on the 28th and up to the 31st -- for nine days after, is that a clear indication that the horse did not suffer from strangury? -- I should say she had no symptoms.

Is it a clear indication to your mind that the horse did not suffer from any result of the blistering on the 22nd? -- I say the blister had nothing to do with it.

The Recorder: These symptoms that Mr. Hoare saw? -- That was later on, your honour.

Dr. Wynne: That was on the 8th of August. Mr. Healy, would you say from the history of the case that this original blister had nothing to say to what Mr. Hoare saw on the 8th of August? -- Well, the original blister might make an open surface for the absorption of foreign bodies. That is all I can say. If a leg was badly blistered it should be bandaged to prevent irritation following.

That is if a horse was badly blistered? -- Yes.

The Recorder: When a horse is blistered first it is laid up or tied up for some time; you say 12 hours? -- Yes. You will have little bubbles coming in three hours.

When ought bandages be put on after the original blister? -- It is not necessary to bandage.

You said there should be bandages? -- Yes, if the skin sloughed.

Dr. Wynne: When would you expect the skin first to slough? -- It should not slough at all if the horse was properly cared for.

Even after blistering of the four limbs being out of the question you would not expect any sloughing if the horse was properly cared? -- No. If the head was loose he might bite some of the particles of the skin.

If the sloughing had started? -- Yes, it would get itchy and irritable.

If the irritableness was due to the blister, when would you expect it to show? -- I should say four or five days. If you used a strong irritant it would take effect immediately.

If this horse had proved to be all right on the Sunday following the blistering, the injuries to the horse were in no way due to what happened on 22nd July. Is that your opinion? -- Yes, I should think so.

Was I right yesterday in saying to His Honour, that



a wet, swampy, muddy place was a bad place for a horse in such a condition?

The Recorder: You mentioned six days?—About that time, your Honour.

Do you confine yourself to six days?—Say to seven or eight.

That was the period?

Dr. Wynne: She was all right on the 29th, 30th, and also as proved by O'Connor on the 31st.

Dr. Wynne (to witness): Was I right in saying that a horse out in a wet place if he tore himself, or bit himself, would be liable to septicæmia from mud and dirt?—He might absorb any toxin that may get on to an open wound.

Was I right in saying flies are a very frequent source of transmission of disease?—Yes, because of irritation, and they convey poisonous matter.

Is that well known?—Well, they can give anthrax and other various things, they pitch on carcasses of fowl and then on open wounds, and inoculate the animals with something.

So far as your skill goes, Mr. Healy, in your opinion did this horse suffer injuries from blistering or some internal cause afterwards?—When she was all right on the Sunday following, something must have occurred to make the legs sore, as they were on the representation of Mr. Hoare. Of course I didn't see the case.

With regard to the effect of flies irritating, we have proved that she had to be put in during the day time owing to this, would it be a factor?—A horse irritated by flies, he would lick it or bite it.

You know that of your own practical experience?—Yes.

Did you see the prescription for the blister?—Yes.

In your opinion is it a proper one?—It is an ordinary one.

Mr. Healy was here handed the prescription, and was cross-examined.

Mr. Galvin asked him to read it out. You are a gentleman of practical experience. Do you suggest it is possible for a mare to bite her hind legs?—Why not.

You say it is?—Yes. She can scratch her hind legs easily.

And bite them?—Yes. What is to prevent it except she is diseased.

You say it is possible for a mare to bite both hind legs?—Yes, one side and the other. If she could not do it she would not be much good.

Take this question of blistering the four legs. You say that in modern times, in recent years, it has not been the custom to blister the four legs all at once. That is what you told the Recorder?—I mean all the four legs—not the fore legs.

Fix the period for me as regards recent years?—Latterly, if I may explain, some horses are fired and not blistered; you leave them for eight days. If you want a neat operation put a blister on, then you fire, it will not do so well if you leave it for eight days.

I want to get your date. You are here as an expert. Is that what you say, within the last two or three years it is not customary to blister the four legs at the same time?—As I stated before you can blister the four legs with slight blisters, but if you use strong ones it is only right to do two of the legs.

I may take it as your evidence—don't do yourself an injustice—you said in recent years the practice is not to blister all four legs. I want to know is it within two or three years?—I said 10 or 15 years.

And I suggest 30 years. Listen to this. (Mr. Galvin here opened a book).

Dr. Wynne: Is this by the man who says a horse cannot bite his hind legs?

Mr. Galvin: We will show that now. I suggest for 30 years past not alone is it not done, but it has been regarded as inhuman. Dr. Wynne scoffs at this book.

It is an old book dated 1880—32 years ago. It is by William Youatt, was he a leading man?—I don't know whether he was or not.

It is a name many veterinary surgeons pay a good deal of attention to?—Every surgeon has his own book.

Dr. Wynne: Mr. Hoare has a book of his own.

Mr. Galvin: Do you agree with this passage "The inhuman practice of blistering all four legs at the same time, and perhaps high on the legs, cannot be too strongly reprehended." That after 30 years. Do you agree with that?—Does he give the receipt for the blister used?

No, he does not.

The Recorder: Your answer Mr. Healy would depend on the blister?—Decidedly. You could get them strong or very weak.

Mr. Galvin: Take this prescription in your hands. Do you call that a strong or weak blister?—Well, it is not a very strong blister.

You have in it euphorbium. Is that a very strong irritant?—It is a strong irritant, but there are other things in it.

Is that in the blister?—It is here.

And do you still say it is not strong. There were four ounces of that blister. Is that a strong irritant?—It is not a very strong blister.

Will you say it is a strong blister?—It is a medium strong blister, but not very strong.

A medium strong blister. A blister of that kind applied to all four legs at once would it be inhuman?—I would say no.

You would not agree with Youatt?—No.

A more modern book is by Williams?—It is a good work.

Is it the best and standard?—It is a very good book on surgery.

Is this a surgical matter we are dealing with?—Of course it is, some of it, it is mixed.

Do you agree with Mr. Williams when he says—"No more than two legs are to be blistered at one time." Do you agree with that?—Decidedly.

"And three weeks at least must be allowed to elapse before the others are blistered and between each re-application." There is nothing in that about a strong or a weak blister?—I agree with Prof. Williams, I was one of his pupils.

You agree that no more than two ought to be blistered?—Yes.

And consequently four would not be proper treatment?—It would not be proper treatment.

And go one better than that. If it was not right to put four blisters, if the two fore legs were fired at the same time it would be still more improper?—I heard in the evidence of only one leg.

Assume for argument there were only two. Take it one first. It would be improper to blister the fore legs. Would it still be more improper to fire the fore legs and blister all four?—The firing of the fore leg would not do any harm, and the blisters put on.

It would not be an aggravation of the irritant?—Not a bit.

To fire and place a blister would not increase the irritation?—No.

The effect of excessive heat in the absence of a blister would be a cause of irritation?—If the heat was put up close to it.

It all depends on distance?—Yes.

For what purpose do you think a shovel was heated red hot. Was it to make the flesh hot? It is an old practice and people do it. They generally put it up to heat the blister into the skin.

Do veterinary surgeons do it?—I have done it myself I am sorry to hear that?—You needn't be.

Dr. Wynne: We have Galvin on licensing but not on veterinary surgery.

Mr. Galvin : To fire the two fore legs and then blister the four legs, do you think the putting up of a hot shovel is calculated to increase the irritation?—It would depend on the time you keep the hot shovel to the leg, and how near.

I ask you for that purpose?—It has a stimulating effect on the blister.

And consequently it would make it stronger?—Of course it did.

And more irritating, and therefore it would be inhuman to put the red hot shovel about the legs. We will pass to the conditions you would expect to find from extensive blistering—one of them would be sloughing of the skin. You agree with Prof. Williams in that?—The hair would fall off perhaps.

And the sloughing?—It does not always occur.

Is it the usual concomitant of unusual irritation?—It follows it.

The Recorder : Sloughing, is it from very extensive blistering?—Yes.

Mr. Galvin : Ulceration and sloughing, that is what you would expect to find?—You would.

And now let us see what is between you and Mr. Hoare on the question of time. You heard Mr. Hoare's description of the operation of sloughing, the skin coming off; he says after the expiration of a week at least. Those were his words?—Yes.

Do you agree with that?—After the expiration of a week.

At least, do you say this. Is there anything between you and Mr. Hoare. Are we only splitting hairs. Are you binding yourself down to these dates, or are you adopting his evidence that it would show in seven or eight days?—It would depend on the extent of the blister. It would show quicker if the blister is very severe. If it is an ordinary blister it won't slough in that time.

Take it that it is a very mild blister?

The Recorder : Is sloughing the result of any blister?—It may occur.

From any?—Sloughing will occur from erysipelas. The skin will come off. If you have a thin-skinned animal you will have sloughing.

Mr. Galvin : I want to call your attention to the fact, on the four legs of the unfortunate mare sloughing took place on Wednesday. Do you draw any inference?—Sloughing was not due to the blistering of her legs.

That is your opinion?—The stronger the blister the quicker it would slough.

What is the sloughing from?—She may have bitten or eaten the four legs.

The four of them?—Yes.

Is it improper to blister the heels?—It is not right practice, but the blister may roll in when it is rubbed on the tendons.

Should it roll down?—If a man used ordinary care it would not, but it never does any harm.

It never does any harm?—You don't agree with the text books?

The Recorder : Where it is not rubbed in it does not do any harm?—Yes, that is what I say.

Mr. Galvin : If it is rubbed in?—If it is rubbed in it will have a good effect.

You are rather startling?—The man said he blistered the four legs.

Take your last statement. Did I understand you to say that if a blister is rubbed into the heels it is good treatment?—If it is required to be rubbed in. If you blister all round the legs you cannot help blistering the heels, can you.

Don't mind asking me. I knew a great judge of a horse who said that to blister the heels was a very bad thing. You say the contrary?—I am saying if the blister goes in it does not do any harm.

Would it be improper treatment?—I should say it would not.

That is an answer. The sloughing was not, in your opinion, due to the blistering. What was it due to?—The irritation of the flies and the animal's mouth.

In the end of July and the early part of August of this year what kind of weather had we, do you remember?

Dr. Wynne : There were lots of flies about then.

Mr. Galvin : Do you think under the conditions that then existed that flies would cause this animal to suffer as she did. Let us understand the matter : if a fly got on to a diseased carcase of a fowl, ate part of it, then went to the near fore leg of this animal, then to the off fore-leg, and next to the two hind legs, would you expect to find the condition described?—I would expect to find septic absorption; they need not eat the fowl, flies carry it on their legs.

Would it not have to be conveyed under the conditions you heard, independently to each of the four legs?—Yes.

And therefore this imaginary fly should, in order to produce this result, have eaten portions of this diseased fowl, and then gone to each of the four legs in turn of the mare. Is that likely, Mr. Healy?—I have seen it occur.

You have seen the fly go to the four legs?—I have seen a mare die from being inoculated by flies.

You know what we are talking about; septicæmia to go from one leg to the others should go through the body. To do what you say the fly should carry the poison to each one of the legs?—It need not do that if it lodged in one.

Must it not go through the system?—Yes, of course.

If it does not go through the system, must not there be separate septic absorption in each limb?—It must, of course, get into the system.

You said something in your direct examination about the land. Do you know the land at Frankfield?—It is a boggy place, and I have an idea of it.

Do you know it all?—I have an idea of it.

Did you ever see it?—I did.

Is it not just the place you would send an animal that had been just blistered?—I would not send her out with an open pair of legs.

But you say the legs were not open?—It is a boggy place.

Is not that just the place where the vets say to send them?—Not if there is dirt there.

We are told it is a peaty mould and drained. Do you suggest anything better could be got in the way of grazing; away from dwelling houses, the nearest one being half-a-mile distant, and near no sewer?—I should like to have a horse in a cleaner surface.

Do you know this place is specially selected as having a clean surface?—If you say to put out screws there it might be.

No, not for screws, but for hunters. Assume it is so, do you suggest for a moment that that would be the cause of septicæmia?—I would suggest to have the animal in a cleaner place.

Where is the dirt. Assume we have proved those parts of the lands of Vernon Mount are not within half-a-mile of a dwelling, a sewer or a drain, that it is a peat bog, and that it is drained, what dirt could you possibly suggest could get into the wound, and what better land could you suggest?—Bacilli may be there.

Dr. Wynne : Mr. Healy, have you in your own actual experience come across a case in which a horse has died from septicæmia the result of being inoculated by flies?—I have seen it occur.

In your own experience?—Yes.

If, as it is proved here, that on Sunday the 28th, six days after the horse had been blistered, mud and dirt were clinging to the horse, do you draw any possible

inference from that?—If the crust were on the skin this man would have observed it. The fact that there was no crust there—

Your opinion is this condition was not the result of blistering?—I would say so.

Is there anything impossible or ridiculous in septicaemia being set up in the way you describe?—Oh, not at all.

If the horse had fallen in a boggy place, in its struggles to get up it may have injured herself?—She would have knocked off the skin.

This septicaemia is blood poisoning?—Nothing more nor less.

The Recorder: I want to ask you a question. This mare was operated on for knuckling over on the near hind leg. I cannot discover from any of the witnesses if she was lame, except you call that lameness of the fore legs. Was it in these conditions in your judgment proper treatment to blister the horse all round, as has been described, from the hocks to the heels, and from the knees to the heels; there being apparently, from Mr. McSweeney's evidence, no splint on the off fore leg?—It was not right treatment to adopt.

It was misconceived. What possible good could a blister do to the off fore leg?—They often blister one leg and give a rub to the other so as to balance. If one leg is blistered, the animal would stand too much on the other.

You heard what was done here. They may have been put on both fore legs, but at all events there was no lameness as far as we can discover?—Only lame at the time the shoes had to be removed by McSweeney.

She was seven or eight years old, is not that important?—At that age you don't mind splints if they don't make them lame.

Why should they either fire or blister the fore legs, or at least the off fore leg and the off hind leg. That was wrong?—It was not right to do.

Of course there remains the question was that done by the joint consent of the two. That is Dr. Wynne's case.

Dr. Wynne: I say at the request and direction. (To witness). Whether it is wrong or right, give me your opinion as a veterinary man—in your opinion had that anything to say to the disease from which this animal suffered?—I should say it had nothing to do with it.

Mr. Richard Blair, chemist, deposed to having made up the blister, which to his knowledge was being used for the past 50 years.

A young man named Donovan said he was in the employment of McSweeney for four years and had often seen horses blistered, and had done it himself.

Judgment was reserved.

NOTE.—The blister in the above case was composed of:

Euphorbium, 1 to 8 of basis (lard).

Cantharides, 1 to 8 "

Also Ol Sinapis and Ol Origanum.

Since Prof. Dewar of Edinburgh took over the large and important farm of Balbegno in Kincardineshire, he is gradually building up a very choice Clydesdale stud. The Professor has already several pedigree mares on the place, and has just bought two superior filly foals, bred by Mr. Renwick, Meadowfield, Corstorphine, both are by Diana's Prince out of Baron's Pride mares.

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended Oct. 26	9		9				3		21	30	2	37	762
Corresponding week in	1911	13	14				11	23			1	45	960
	1910	32	39				4	12			2	41	486
	1909	25	28				10	20			3	28	252
Total for 43 weeks, 1912	639		721		82	602	148	273	2480	5314	186	2479	33497
Corresponding period in	1911	723	895		18	467	177	419			316	2081	24815
	1910	1206	1432		2	15	317	923			361	1214	11187
	1909	1072	1407				453	1588			492	1413	12699

† Counties affected, animals attacked: London 3.

Board of Agriculture and Fisheries, Oct. 29, 1912.

IRELAND. Week ended	Oct. 26	...		23	73	...		Outbreaks	2	2	1	41
		...		...	...	...		...				
Corresponding Week in	1911	...	...	...	...	...	...	1	4	1	28	
	1910	...	2	2	...	...	...	...	7	1	...	
	1909	...	...	...	...	...	...	...	7	...	...	
Total for 43 weeks, 1912		...	3	3	65	360	...	58	286	194	1581	
Corresponding period in	1911	...	7	14	...	...	2	3	53	281	113	1923
	1910	...	5	10	...	...	1	2	62	382	78	1778
	1909	...	8	3	...	...	...	...	69	323	86	1561

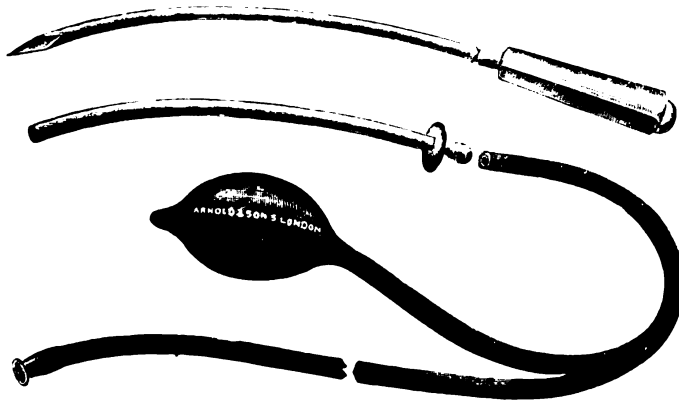
† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Oct. 28, 1912

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## IMPROVED TROCAR AND CANULA.



In cases of impaction of the bowels, with tympanitis, I have found this instrument a great help. After the gas has been removed from the bowels, I attach the rubber tubing to the neck of the canula, and inject a quart of Chinosol solution—one tablet of Chinosol to a quart of warm water. It is a good antiseptic, and softens the impacted mass. I have given this instrument a good trial, and find that it works well in these cases. There will probably be many cases of impaction of the bowels this coming winter, following the bad hay harvest.

The makers are Messrs. Arnold and Sons, Giltspur Street, London, E.C.

W. FRANCIS HUGHES, M.R.C.V.S.

## PARLIAMENTARY.

## JOHNE'S DISEASE.

In the House of Commons, on Wednesday, Oct. 23

Mr. C. BATHURST asked the President of the Board of Agriculture whether he is aware that in a report of an investigation of Johne's disease of cattle, part of the expenses of which have been defrayed by the Board, appearing in *The Journal of Comparative Pathology and Therapeutics* for September, the whole of the section dealing with the cultivation of the bacillus of this disease, which is essential for the preparation of a specific diagnostic vaccine, is a repetition of the work of Messrs. Twort and Ingram, read before the Royal Society in February, 1912: whether he is aware that without Dr. Twort's initial discovery of a medium on which to cultivate the bacillus, read before the Royal Society on 17th November, 1910, this section of the report could not have been written: whether in the report upon Johne's disease lately issued for the research laboratory of the Royal Veterinary College, or in any other publication the Government investigators into this disease have been able to adduce any evidence to disprove Messrs. Twort and Ingram's claims as to the efficacy of their specific diagnostic vaccine; and, if so, whether he will explain why a subsidy out of the Development Fund for the further investigation of Johne's disease has been granted to the Royal Veterinary College and none to the original investigators.

Mr. RUNCIMAN: The answer to the first part of the question is in the negative. A large part of the work described in the section dealing with the cultivation of the bacillus was carried out before February, 1912. With regard to the second part, it is impossible to state what would have been the result of independent attempts to cultivate the bacillus if Mr. Twort had not previously described a method by which this could be done. With regard to the third part, I am advised that the conclusions drawn by Messrs. Twort and Ingram regarding the relative value of different methods of diagnosis in Johne's disease are premature, and that they are not warranted by the evidence which has been published. The question of diagnosis forms an important part of the investigations in progress at the Royal Veterinary College. I feel bound to add that the question of the hon. member seems to me to suggest that those who have been engaged on the investigations at the Royal Veterinary College have been less scrupulous

than they should have been of the rights of other workers in the same field. I can find no evidence which justifies such a suggestion, and I hope that the hon. member will be willing to disclaim it.

Mr. C. BATHURST: I made no such suggestion. I should like to know who will enjoy the commercial profit to be derived from the discovery of this medium?

## The Danger of "Roarers" for Military Work.

At a meeting at Penrith of the Cumberland and Westmoreland Territorial Association on Tuesday, 22nd ult., a question came up as to the purchase of nearly a score remounts. The Earl of Lonsdale, chairman, said nothing was said in the conditions as to roarers. A roarer was a very dangerous animal, especially under pressure of haulage. He remembered when going over the Kyber Pass two of the transport horses were roarers and they delayed the transport very much by falling, and one of them died. The same thing happened with the Yeomanry when on Salisbury Plain. There were very good racehorses which were roarers, but they were dangerous, because roaring was often accompanied by heart disease, and no one knew what was going to happen. When there was artillery it was a very dangerous thing.

Col. Dudgeon said he had had similar experiences. It was decided to apply restrictions against roarers — *The Yorkshire Post*.

## Professional Evidence for the Butcher.

A deputation from the National Federation waited upon the Right Hon. John Burns "on the question of permission being given to a butcher to call in a professional man in the case where a carcass was condemned by an inspector." As the law stands no man has the power to call in an expert to give an opinion as against that of the inspector.

## Personal.

BOLTON—CARR.—At the Parish Church, South Hetton on the 23rd inst., by the Rev. A. E. Johnson, William Thomas Bolton, M.R.C.V.S., son of the late Dr. Bolton and Mrs. Bolton, of Prospect House, Ebchester Hill, to Ann Gertrude Carr, eldest daughter of Mr. J. Carr, of Haswell, and niece of Messrs. Oswald and Boad.

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Oct. 25.

## TERRITORIAL FORCE. ARMY VETERINARY CORPS.

W. D. Jordon to be Lieut. Dated Aug. 24.

Maj. H. A. Sullivan, retired pay, Army Veterinary Corps, is appointed Administrative Veterinary Officer of a Territorial Division, and is granted the temporary rank of Lieut.-Col. in the T. F. whilst holding the appointment. Dated Oct. 26.

## OBITUARY

JOHN McLAUCHLAN YOUNG, F.R.C.V.S., F.R.S.E., F.Z.S.  
The University, Aberdeen.

New, Edin: Dec., 1891. Fellow, Dec., 1897.

Mr. Young's death occurred on Oct. 23rd, from ascites, after a protracted illness.

He was Lecturer on Veterinary Hygiene, Aberdeen University, Examiner in Materia Medica, R.C.V.S., 1907-1912. He was a native of Dundee, where his father, Dr. Peter Young, was a well-known and highly respected medical practitioner.

For many years Mr. Young was an enthusiastic member of the Fife Light Horse, in which he held a commission as veterinary officer, and on the outbreak of the South African War he volunteered his services, which were accepted, and served with the Yeomanry there for about two years, was present at several engagements, and received the South African medal and clasps.

Mr. Young, who was 45 years of age, was married, and is survived by Mrs. Young and one daughter.

## The Late Mr. John Bowman.

The late Mr. Bowman for many years carried on a highly successful veterinary practice at Fishergate Villa, Fulford Road, York. The practice from which he retired only within the last three years, was established over half a century ago, and the late Mr. Bowman was widely reputed for his great knowledge of the treatment of horses. His connection with the farmers of Yorkshire and the North of England generally was an extensive one, and he was particularly well known amongst the farmers of Escrick, Wheldrake, and the villages of East Yorkshire. Mr. Bowman was a regular attender at the York Cattle Market, while he also at one time took an interest in the breeding of horses. Though the deceased took no part in public affairs, he was one of the most popular citizens, and was widely respected, and his death will be regretted by a very wide circle.

The remains of the late Mr. John Collins Bowman, of the Villa, Acomb, were interred in the Churchyard at Elvington, on Friday, 25th Oct. Mr. Bowman belonged to an old Elvington family which has been connected with that village for at least two hundred years. By his general good nature and kindly disposition Mr. Bowman has endeared himself to everyone of his many friends, and his memory will be long cherished in York and district.

The funeral service at Elvington was of a very simple character, and was conducted by the Rev. R. P. T. Tennant, vicar of Acomb. The chief mourners were Miss Bowman (daughter), Miss Minnie Bowman (niece), Mr. G. E. Bowman, M.R.C.V.S. (Leeds, brother), Mrs. Mayson Johnson (sister), Mr. George Chapman, and Mr. George Crombie (York). There was a large assembly of friends of the deceased gentleman, including Mr. G. H. Pollock, M.R.C.V.S., of Acomb; Mr. E. Coates,

Elvington; Dr. Acomb, Dr. Wightman, Mr. and Mrs. W. Hick, Wheldrake.

The correspondent to whom we are indebted for *The Yorkshire Herald* with an account of Mr. Bowman's funeral adds:—

"He was a student of the late Prof. Dick at the College in Clyde Street, Edinburgh. In his younger days he was a keen sportsman, being a capital game shot: hunted many years with the York and Ainsty and Lord Middleton's Hounds, and rode and won many steeple-chases."

## CORRESPONDENCE.

## CASTRATION STANDING, AND THE USE OF CLAMPS.

Dear Sir,

It does not improve our standing as professional men to follow methods in operative surgery dictated by our clients, and whatever of ease to the operator and "pleasure" to the operated conferred by the standing operation, it is not surgery.

I have had no experience with the use of the emasculator, but after more than thirty years experience with the ecraseur I have never seen a fatal haemorrhage follow its use, and during all that time have not had half a dozen cases requiring after attention on account of bleeding.

Why a man in the twentieth century should torture a horse with the clamp is to me a mystery. An aseptic ecraseur and knife, due care not to touch any part we do not remove, the flushing of the canals with an antiseptic after the operation is completed, and either proper antiseptic after care of the wound, or absolute non-interference, will give results that leave nothing to be desired.

I shall never forget a criticism of Prof. Alexander Liautard, of New York, on the standing operation. He witnessed the operation by request, and after its rapid performance was asked, Well, Professor, what do you think of that? I remember his reply, What do I think? I think it is butchery—it is not surgery.

In practising the art of surgery let us not neglect the science. Castration is a major surgical operation, always to be approached, whatever our skill and experience, with some degree of apprehension. We are operating on a well animal, not doing an emergency operation of necessity to save life of a sick one. Lack of care sooner or later means lack of business, and lack of business means all that is horrible to the worshippers at the shrine of the "Goddess of Getting Along."

Throughout my career I have always promptly shut down on any suggestions from my clients as to the manner and matter of the medical or surgical treatment of their stock, and I am sure that I have gained business from following that course.—Yours very truly,

THOMAS B. ROGERS

President, V.M.A. of New Jersey.

Woodbury, New Jersey. Oct. 10.

Sir,

In reply to the kind invitation of Mr. H. A. Barrett, I beg to say that if I have any desire for practical lessons in mountebank surgery (?) I can take them from one of the many travelling gelders, who are experts at applying "dressed" clamps, stated not to cause pain, inflammation or swelling." These experts can be found in districts far nearer home, than the Royal Veterinary College, and they are said to possess all the attributes necessary for applying the pieces of wood and caustic to the spermatic cords, although they are not permitted to add the mystic letters to their names. But really if Mr. Barrett is anxious to defend the standing operation, he ought to answer the "wild" remarks by some tame argument. I may also remind him that the ordinary colts we are called on to castrate are not those which could be led through the streets of London. Even this would prove a feat to standing operators.—Yours, etc.,

F. WALLIS HOARE.

Sir,

It is quite unnecessary to have a dress rehearsal of the standing operation with wooden clams with Mr. Barrett as the star artist. I saw the operation performed standing in Lancashire 22 years ago which would be about the time Mr. Barrett was thinking about it. I have done the operation many times standing myself and even used wooden clams.

If Mr. Barrett will call and see me at a convenient time I will show him how to castrate a colt standing (without clams, either dressed or undressed, à la Biddy and the tomatoes) in a fairly surgical manner and certainly in a way streets above the wooden pincer style.

A free advertisement of a pre-historic method is not what I desire or require.—Yours faithfully, G. MAYALL.

#### CASTRATION AND ANÆSTHETICS.

Dear Sir,

On reading Mr. Wallis Hoare's letter in your issue of Oct. 19th, my first impression was that there was not a word in it worth answering. However, as I have entered into this discussion, I thought I might make a few final comments on the absurdity of his remarks.

First, I would say that my statements concerning the non-surgical methods employed in castration in the recumbent position and the small amount of chloroform likely to be used if the Bill becomes law were entirely without arrogance or disrespect. Though these statements were made with a certain amount of regret that their truth could not be honestly challenged, they were made with a full knowledge and appreciation of the difficulties and prejudices encountered in carrying out this work in this country. With regard to other countries I cannot speak.

Nothing Mr. Hoare could have said or inferred could have convinced me more, if that were possible, that the standing operation is the superior method, that his statement that so many colts die that some Insurance Companies will not accept the risk. I trust I may be acquitted of any vanity when I say that of the thousand odd colts I have operated upon since adopting the standing method only two have died, and in both these cases, though the operation was the indirect cause of death it certainly was not the direct cause, as no veterinary surgeon would have passed either for insurance; one had to be cast owing to a previous attempt at castration in the recumbent position by another individual, while the other would not have been operated upon had it not been for the owner's insistence. I do not expect to be able to maintain such a low percentage of fatalities, and I do not ascribe this to personal skill, but to the method adopted.

I repeat my statement "Speaking generally you cannot kill him," and feel convinced that while many will accept it they will not follow Mr. Wallis Hoare in his absurd assumption that all our precautions with reference to antiseptic treatment are practically useless.

I gained my information as to the methods adopted in the recumbent position by observing and assisting some members of the R.C.V.S. castrating. Was Mr. Hoare thinking that if I gave the source of my information I should have to admit that I gained it from travelling gelders. If so, he is disappointed.

I am content to let my remark "that the animal is partly on his back" remain. I agree with Mr. Hoare that in the recumbent position, having the animal on his side, is superior to placing it on its back, and usually suffices, but nevertheless, owing to the upper hind limb being tied up so as to expose the scrotum, and owing to the anatomical arrangement of the parts in this position, this does not prevent the contaminated fluids draining back into the scrotum.

Paragraph 3 of his letter clearly shows that he does not know everything in connection with the standing operation.

I feel rather loth to encroach upon the "fear and pain" question, as I recognise that this is a subject for a psychologist. However, I should say that an animal experiences no small amount of horror when it is suddenly partially asphyxiated, and when pungent strange vapours are first brought to play upon a sense of smell incomparably superior to that of man. I am sure that the excitable horses Mr. Hoare refers to would be in no small measure inconvenienced.

I did not know, when I said that clams are safer and give better results, that generations of gelders had said the same thing. So much the better, if the experience of generations is on my side. It does not necessarily follow that if one appreciates the experience gained by former generations one must have recourse to "their" literature; text books in all ages are not very often written by people who have little to do and have very limited practical experience.

There are some men who, from want of knowledge or confidence in their own abilities, dare not adopt any of the methods of our forefathers lest they be thought ignorant or old-fashioned. A scandalous example of this occurred recently. An article to the lay press from the pen of a member of the R.C.V.S., written with the malicious intention of conveying to the lay mind that firing with an old-fashioned iron heated in a coal fire is more barbarous (quite apart from whether it is done under anæsthesia or not) than when done by the modern method—presumably the thermo cautery. The writer is a man of such unctuous humanity that he, without thinking for the fraction of a second what amount of pain he will cause, gratuitously advises every week dozens of men to blister animals. The fact that Mr. Wallis Hoare is pleased to designate clams as cruel, inhuman, barbarous, and unscientific, chiefly because they were used by our predecessors, does not make them so. It is only an expression of his opinion. Those who use them and recognise the advantages of so doing will, in all probability, go on using them, for much as Mr. Hoare would like to make us "scientific" by Act of Parliament, I doubt whether the Bill will pass. It would be difficult to find a Bill so ill-considered in its composition, so preferential in its protection, and so lacking in details as to administration.

May I crave a little more space to make a few comments on Mr. Mayall's letter. I am sorry I cannot accept his statement that the majority of operators with ecraseur or emasculator boil and disinfect their instruments. It is without prejudice or disrespect that I feel assured they are in the minority. I always thought the second chain was carried by users of the ecraseur in case of accident to the first, not for cleanliness. If the reason is to use a clean chain for each colt, then some men would find themselves loaded up with thirty or forty spare chains.

Unfortunately Mr. Mayall seems to have only seen the wooden clams used where proper or even ordinary care of them has not been observed. He will think it a terrible admission on my part when I say I have this year used wooden clams I used seven years ago, and those perhaps three or four times a year. This has not been done from meanness but to satisfy a little inquisitiveness, and because I feel sure they are quite safe after thorough scouring and boiling for fifteen or twenty minutes. I have seen infected cords after castrating standing, but I should not like to positively blame the clams. It may have been my hands, or it may have occurred after removal of the clams.

It is not necessary that steel clams should be used for castrating rams, neither is it necessary that the scrotum should not be opened. I should like to hear if anyone can offer any explanation why "trapping" (a dear old unscientific word, isn't it?) is practically the only method of castrating rams with any degree of success.

I admit that the cleanliness of the colt's surroundings has much to do with the amount of subsequent swelling. This factor does not vary whether colts are operated upon up or down. In my last letter I was comparing the proportional amount of swelling after both methods. I quite fail to see how drainage is affected by wooden clams. Surely Mr. Mayall does not think they are left on to fall off?

In conclusion, I should like to remark, lest an opposite impression has been formed, that I am in favour of the use of anæsthetics for the lower animals. I know the benefit of them both to the animal and the operator, and I recognise that it is our duty as well as our object as veterinary surgeons (apart from getting a living) to alleviate what suffering we can amongst them. But I do maintain that there are some operations for which it is not necessary, and for which it should not be compulsory. Among these operations is castration.—I am, yours faithfully,

E. BRAYLEY REYNOLDS.

October 23rd.

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P. 373 - 352

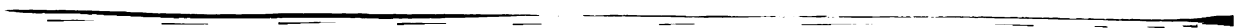




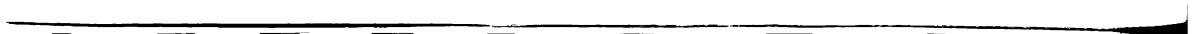
































































































































































































# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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VOL. XXV.

## VACCINE THERAPY.

Treatment by bacterial vaccines—whether the stock preparations now turned out by many manufacturing firms, or specially prepared autogenous vaccines—has now become very frequent indeed in human medicine and surgery, and is gradually being introduced into veterinary work. Treatment by stock vaccines, especially by polyvalent preparations of pyogenic germs, has certainly been greatly abused; it is generally a shot in the dark, and has often been applied indiscriminately. It has often, however, been followed by good results; though the much more difficult procedure of using an autogenous vaccine is more hopeful. There are now a fair number of records of vaccine therapy as a whole in veterinary literature; and, whatever its limitations may be, it is now so firmly established that every clinician ought to possess some knowledge of its theory and practice.

Autogenous vaccines will probably always have a very restricted application in everyday veterinary practice. Their use demands the services of a specialist in each individual case. Their preparation alone, even when their effect is not tested by the regular estimation of the opsonic index, is beyond the powers of the average clinician. There are men in private practice, it is true, whose bacteriological studies have extended far enough for this; and some of them may now and then find time to apply the treatment to a single case, but not to adopt it as a common method. Thus, if an autogenous vaccine is required, a bacteriologist's aid must be sought; and, apart from the delay and possible damage to material which is involved, it is obvious that financial considerations alone will suffice to prevent this use of vaccine therapy in most practices.

Stock vaccines any practitioner can purchase and use with perfect ease; but at present their administration seems at best a somewhat haphazard method of treatment. The whole subject of vaccine therapy requires closer study than many practitioners have yet given it: even those who are most sceptical of its value would do well to understand its principles, for any day may bring a request from a client to use it, and certainly it should not be used without a sound comprehension of its theory and practice alike. There are many subjects which, though they are not yet, and perhaps never will be, of very great importance in our daily work, we yet cannot afford to neglect. This is one of them, and one which may, within a few years' time, become much more important to us than it seems to-day.

## DINNER TO PROF. WOODRUFF.

It is proposed to give a complimentary dinner to Professor Woodruff on Jan. 8th on the occasion of his leaving England for Melbourne. The arrangements are in the hands of Professors Macqueen and Wooldridge, with Messrs. S. Price, J. W. McIntosh, and W. Hunting. Those desirous of taking part will oblige by communicating at once with any of the above.

## A SALIVARY CALCULUS IN STENON'S DUCT REMOVED BY OPERATION.

By Capt. E. P. ARGYLE, A.V.C.

*Subject.*—An aged chestnut polo pony gelding the property of an officer.

*History and Symptoms.*—The pony was brought for inspection last June, and my attention was directed to a hard, well defined swelling under the skin on the off side of the face, at the inferior border of the masseter muscle, about two and a half inches above the free edge of the lower jaw, in the course of Stenon's duct. It was painless, and non-adherent to the surrounding tissues. I was informed that this swelling had existed for some time, and that when it was first noticed it was on the free edge of the jaw, but that it had recently moved up on to the face. A soft fluctuating swelling now extended to the right parotid region, this did not appear to cause the pony any inconvenience. The patient's appetite was good, and he was being played at polo three days a week.

The case was kept under observation several days before a diagnosis was made, then I diagnosed a calculus in Stenon's duct, and as the case was not urgent it was decided to defer any operative interference until the end of the polo season. The pony continued to play polo up to the 9th September, when he was again brought to me. The hard swelling was larger, the parotid œdema had also increased; the animal showed symptoms of pain and had difficulty in opening its mouth. I made several efforts to move the calculus along the duct by manipulation, but failed.

On the evening of the 10th the swelling of the parotid gland was much larger, Stenon's duct behind the obstruction was distended, and the pony stood with his nose poked out and his head turned to the off side. He had eaten very little food during the day, and as I feared an abscess was forming in the gland, I decided to operate the next day. In the meantime the skin over the hard swelling was shaved and disinfected, and food withheld.

On the morning of the 11th the operation area was painted at intervals of ten minutes, for about an hour, with a 10 per cent. solution of cocaine hydrochloride, and when local anæsthesia of the skin was complete, the pony was cast. An incision some  $3\frac{1}{2}$  inches in length was made through the skin over the centre of the swelling and continued along its whole length. The long axis of the swelling coincided with the direction of the duct. The skin was dissected away from the underlying tissues for a short distance on either side of the incision, until the duct was exposed. Hæmorrhage was insignificant. The Zygomaticus muscle, under cover of which Stenno's duct penetrates into the mouth, had to be separated and held out of the way. It was then seen that the duct was completely blocked by the obstruction, and that there was a large quantity of saliva welled back behind the calculus. The wall of the duct was divided at the posterior, proximal, end of the obstruction, and a grooved director was pushed up between the calculus and the wall of the duct. On this director the duct wall was slit up about an inch-and-a-half. The calculus could now be seen, and was raised by passing the scoop under it. On removing it from its bed there was a copious flow of saliva containing some large flakes of mucus; when this ceased the bleeding vessels were taken up with pressure forceps and the lining of the duct examined. This was inflamed and discoloured, the epithelium being overgrown at one or two points. Beyond ascertaining that the duct was pervious on either side of the wound, I disturbed it as little as possible, but irrigated it with warm boric acid solution, and drew the skin firmly together with five interrupted sutures.

*After treatment.*—The pony was released from the hobbles and placed in a loose box, bedded down on peat moss, and not allowed any food for 48 hours. The wound was left entirely alone. On the 14th a small feed of bran with a double handful of crushed oats was given, which I watched the patient eat. There was a discharge of saliva from the wound which ceased about two minutes after the meal was finished. Food was given three times on the 14th and also on the 15th, the saliva being wiped away from the operation wound with a little absorbent wool after each feed. The quantity of saliva escaping from the wound was seen to be steadily diminishing, and on the 20th a feed was eaten without any saliva escaping. The operation wound healed very quickly, only a small scar remaining.

The calculus weighed 40 grams and measured six centimetres long and 2.6 centimetres at its widest part, being an elongated oval in shape. Prof. G. D. Lander, D.Sc. very kindly examined the calculus and found its composition to be—"Calcium carbonate and triple phosphate (ammonium magnesium phosphates, the former being the greater part. In addition there was present (as always) a certain amount of organic matter—not uric acid, but cell fragments—entangled organic substances."

## TUBERCULOSIS AND MILK.

The special Acts of Parliament obtained by some progressive cities with the object of dealing with tuberculosis of the udder more effectively than is possible under the Dairies, Cowsheds, and Milk-shops Orders, can be so carried out as to greatly minimise the danger of infection to human beings.

In order to do so it is necessary that—

1. The inspection of the cows shall be carried out by veterinary surgeons who by reason of their training and experience are expert in the diagnosis of tuberculosis of the udder. This inspection must be carried out at least once every two months.

2. A large number of samples of milk from outside sources must be taken, so that the milk from the farms is examined as often as the cows in the city cowsheds. This is imperative, as it is only possible to visit a farm from which a tuberculous sample of milk has been obtained.

3. All cows clinically affected in the udder the milk of which is proved either by microscopical or biological examination to contain tubercle bacilli must be slaughtered.

Exception may be taken to slaughtering cows on a positive microscopical examination of the milk, but it must be remembered that the veterinary surgeon is satisfied by the clinical examination that the udder is tuberculous, and the presence of acid-fast bacilli resembling tubercle bacilli in milk which has been drawn from the udder by the inspector himself under proper conditions, to my mind confirms the diagnosis.

Taking the foregoing to be correct, it follows that before the Health Authorities of any city can say that the milk supply has been improved as regards tuberculosis, that is, that there is less frequency of tuberculosis of the udder in the cows supplying the milk of that city, it will be necessary—

1. To examine biologically the milk from all outside farms at least every two months.

2. When a milk is found to contain tubercle bacilli, not only to find a cow with tuberculosis of the udder, or the history of one sold which was affected in the udder; but also to take a control sample of the remainder of the herd to prove the absence of further contamination.

3. To take control samples of the city cowsheds as a check on the clinical examination of the cow's udders.

It was therefore with a considerable amount of regret that I read the results obtained in the City of Liverpool in 1911, as given in the Health Report. It says:

"The number of actual or suspected cases of tuberculosis in cattle which has been found by the inspectors in the City cowsheds has now dwindled down to a very low figure, showing that by a thorough examination and constant supervision this disease amongst cattle may be successfully combated."

The examination of cows and cowsheds within the city has been duly carried out throughout the year, and all cases of sickness amongst the cattle are reported by the *Leave-lookers*. (*italics are mine*)



In cases where the cows are reported to be suffering from any disease of the udder, or any other disease inimical to the public health, the Medical Officer of Health directs that the animal be submitted to veterinary examination and reported on. Should clinical symptoms of tuberculosis of the udder be in evidence, the cow is either removed from the cowshed for slaughter or kept strictly isolated pending a definite conclusion of the case."

This means that the cows in the Liverpool cowsheds are examined by laymen, and it is they who decide when the cows are suffering from disease of the udder and it is necessary to obtain the opinion of the veterinary surgeon.

The results, therefore, speak for themselves, as out of 193 special samples of milk taken from individual cows in the city only two were proved to be tuberculous.

The report is very disappointing in many ways; for instance, although out of 346 mixed country samples taken, 18 are given as tuberculous, only 10 visits and 13 re-visits to farms are shown, and only three cows with tuberculous udders were found.

The number of country samples taken is totally inadequate, especially considering that the counties from which Liverpool obtains a large part of her milk are known to be hotbeds of the disease.

There are 6,428 cows licensed to be kept in the city and 1,567 visits of inspection were made by the leave-lookers, 20,949 cows being examined. Out of that number they reported 113 to the veterinary superintendent. The Veterinary Inspectors made 128 visits to city cowsheds, 85 of which were cases notified by the owners, they examined 215 cows (an average of less than two cows per visit), two of which are certified as being suspicious of tuberculosis of the udders.

*Comparative Table for 1911.*

City cows examined.	T.B. udders.	Country samples.	Positive.	T.B. udders.
Liverpool, 20,949 (6,428 cows).	2	346	18	3
Sheffield. 8,784 (2,400 cows).	27	358	34	23

ERNEST J. BURDRED, M.R.C.V.S., D.V.H.  
Sheffield.

#### CHLOROFORMING HORSES WHILE STANDING.

The interesting communication from Mr. G. E. Gibson has led me to think that my experience in this matter might be of service.

While a student at the Royal Veterinary College in 1876 I was advised by a late eminent professor never to attempt to give chloroform to horses, as it was a special poison to them. At the time, however, I was frequently using it with the most beneficent effects. The late Mr. John Roalfe Cox had used it for some years before that time, but I was

not aware of it. He subsequently gave me one of his muzzles and much useful information on the subject.

My desire to make use of anaesthetics was stimulated by what I saw done in this direction at the Cancer Hospital, Brompton, through the kindness of one of the operating surgeons, in 1875 and 1876. Between 1877 and 1880 I made many elaborate and costly experiments with a view of determining a scientific and exact method of administering chloroform and other anaesthetics to the horse. Mr. G. R. Dudgeon, of Sunderland, gave me valued assistance in these experiments. As a result of them I adopted the simple canvas nosebag with slide valve at the bottom, using in it a damp piece of linen for chloroform, which proved the most manageable of the anaesthetics tested. I discarded the pumps, gas bags, gauges, heaters, valved face pieces and other paraphernalia.

It is always advisable to administer chloroform to horses while standing if they are old, or do not lie down, if they are vicious or wild. In the former cases the risk to spine and limbs is diminished.

At my own infirmary, I prepare a large loose box with a deep bed of straw, and around its walls trusses of straw are stacked on end so as to make practically a straw cell in the middle. A well fitting head-collar is put on, with its noseband as high up the face as possible. To the metal link on each side of the noseband is attached a fairly long rope, each is passed out through holes in the partitions on either side and held by men. The nosebag is fitted, and through the slide opening in the bottom the chloroform is introduced on a linen square previously slightly damped. To attempt to put on the muzzle containing sponge or linen already soaked with chloroform provokes resistance, owing to the odour, and difficulty in affixing the head strap.

Now horses may behave in three ways as soon as this is done; (1) they may slowly subside into the soft bed in the course of three minutes, and at the end of seven to ten minutes be ready for any operation, the trusses of straw being quickly handed out; (2) they may show restlessness and move about, but the head ropes and the limited area restricts this to quite safe limits; (3) they may attempt to rear up, this is checked by the ropes and no harm can ensue.

In the open I always guard against any trotting round, as when they progressively get unsteady ugly falls may ensue, and not exactly on the spot originally designed. It is better to strap up a fore-leg with a Rarey strap to prevent this.

In the open they have more facility for rearing up, and I have, in my earlier days, seen some very dangerous straight over falls.

I find the best plan of obviating this very serious risk is to strap up one fore leg, and place two men to each side head-collar rope, instructing them to watch carefully if the horse is going to rear, and to be quick in obeying a sharp order to pull or slack on one side or the other as required. By taking a man's name on either side a sharp "Pull, Tom" or "Slack, Tom," or "Pull, Joe," or "Slack, Joe,"

ensures a side fall by pivoting the horse on his hind legs. There is ample time to do this if the operator watches the horse's movements and the men are made to understand why they should respectively "pull" or "slack." I always prefer the "straw cell" to the open.

There is little risk in chloroform itself if carefully managed. I have had only one unpremeditated death; and in this case the mare had recovered sufficiently to rest on her brisket, and in my temporary absence, laid down again, and in a minute was dead. A most unsatisfactory point was that a careful post-mortem examination revealed no cause for the death.

All the cases which have given me anxiety have exhibited dangerous symptoms during the period of recovery from the anæsthetic, and I never regard an animal as safe until it is upon its legs. I am led by experience to keep a sharp eye for shallowness or retardation of respiration; these will supervene even when the eye is sensitive and good signs of returning consciousness are apparent.

Relapses into unconsciousness sometimes occur when anæsthesia has been profound; they are generally experienced when operating on very "fit" well-bred animals, which have not passed into the comatose state readily or rapidly; these relapses are always dangerous, but fortunately occur in quite a small number,

CHARLES SHEATHER, F.R.C.V.S.

London.

#### REMARKS ON USE OF THE "SIMPLICITY" EQUINE OPERATING TABLE.

By E. WALLIS HOARE, F.R.C.V.S.

Every practitioner who is largely engaged in surgical work must recognize the importance of a serviceable operating table for the horse, more especially in the case of long and tedious operations. Although this aid to equine surgery is in common use in America and on the Continent, it must be regarded as more or less of a novelty in the British Isles, if we are to judge by the number of practitioners who employ this means of restraint. Having been for a long time convinced that the old system of casting for operations possessed so many disadvantages that any improvement would be welcome, I consulted some practitioners in the United States, who kindly gave me full information on the subject of equine operating tables, and assured me that the modern patterns were useful, reliable and could be manipulated with facility. After due consideration, I communicated with Mr. Conkey, v.s., of Grand Rapids, Michigan, who invented the pattern known as the "Simplicity," and I decided to instal one of his tables in my infirmary. This gentleman very kindly travelled over to this country and set up the table and demonstrated its working.

Now the advantages of an operating table can easily be described, but they are far more readily recognised by the practitioner who employs this method for the first time. The first point is the

facility with which the seat of operation can be dealt with, and the convenience of having the patient at a convenient height off the ground. The necessary surgical procedure can be carried out under the most favourable conditions, delicate operations are greatly facilitated, and the securing of blood vessels becomes an easy matter.

Again, the nearest approach to asepsis can be obtained by having the patient removed from sources of contamination. Another important point is that, in consequence of the method by which the horse is secured, there is less danger of injury to the spine or limbs than is the case with the method of securing by ordinary hobbles. The head being firmly secured to the table, and each limb separately fastened, prevents that arching of the back and powerful struggling which occurs with the ordinary method.

The table is of the flat-top variety, and is turned over by means of two long handles communicating with cog-wheels, so arranged that the process of "turning" is carried out with facility. The table bed rests on a large circular iron base, which can be made to revolve, so that the best light available can be secured. The bed of the table is so shaped that the operator can get at the various seats of operation with facility; moreover, in front there is a moveable portion, by means of which perfect access to various regions is ensured.

As might be expected, some skill is required to place the animal on the table, and to get him on his feet again, so as to avoid accidents. More especially is this the case with unhandled animals. A little experience has taught me that in the case of animals of all ages, it saves much time and risk to administer a dose of chloral hydrate about half an hour prior to operation. By this means the horse can be brought up to the table and manipulated with little or no trouble. Quite recently I put a three year old unhandled filly on the table to operate for a ventral hernia.

There are certain details of importance in the technique of using the table.

1. An operating hood should always be placed on the animal so that he cannot see the table.

2. A reliable man should be put in charge of the head, and especial care taken that the halter and rope are of the strongest description.

3. The table being in the perpendicular position, the animal is carefully brought as close to it as possible, but his head should not be allowed to touch the table. The halter rope is then passed through the opening in the table, and again through the halter, and firmly held by the assistant.

The fore foot nearest to the table is then hobbled (the hobble is fixed to a short chain, and the horse feels no pressure), the girths placed around the body, and by means of a pulley and rope arrangement, the girths are gradually tightened until they reach the body, then they are rapidly tightened up as much as possible until the horse commences to "tip-toe," the long handles are now turned by two assistants, and the horse is quickly off his feet, and on his side on the table. It is of importance for the assistant at the head to bring the latter as close

as possible to the table as soon as the girths are tightened. When the table is turned, it might be imagined that the horse with three legs free would struggle wildly, but as a matter of fact he does not, and the limbs can be quickly secured by means of the hobbles that are fixed to the table. By an ingenious arrangement, these hobbles can be drawn a sufficient distance from the table, to which they are attached by a short chain; this facilitates fastening them on the pasterns; and by means of a small crank the limbs are then rapidly drawn down to the table and firmly fixed there. A neck strap is fastened round the horse's neck.

In removing the horse from the table, all the hobbles are first unfastened, then the halter rope is so arranged that it simply passes through the opening in table, but is firmly held by the assistant, the neck strap is opened, the table is slowly tilted over until the top is about 2½ feet from the perpendicular line, then by a special arrangement the rope holding the girths is allowed to run, and the horse lands on his feet, and the girths are unhooked without any difficulty.

The above is a short description of the technique; of course there are many little points which are not included, such as the removal of a limb from the hobbles, and fixing it by means of a strap to a convenient opening in the table, also the fixing of a hind limb so as to expose the inguinal region; these are details which are learned with facility.

Like all the flat top tables, this pattern has the drawback that the underneath regions of the limb cannot be got at without reversing the horse, but the animal does not give much trouble once the operator gets expert at the work.

Another point is with reference to chloroform anaesthesia. American practitioners advise that when the operation is completed, the horse should be carefully drawn off the table on to a bed of straw; this can easily be accomplished by bringing the table to the perpendicular very slowly. But there are cases in which it would be undesirable to adopt this method, *e.g.*, when an animal would be likely to do damage to the operation wound in the act of getting up, also from the point of view of asepsis. I see no objection to letting the animal remain on the table until consciousness returns sufficiently to enable him to stand on his feet.

By the use of Chloral hydrate and of local anaesthesia, it will be possible to avoid in many instances the induction of deep chloroform narcosis, and I am now working at the subject, and hope to publish results at a future date.

I am now quite convinced of the utility of the operating table, and regret very much that I was not aware of its value in former years, as it would have had a very important effect on the results of many operations. Perhaps I have yet to learn of dangers and drawbacks in connection with its employment, but if it can be used successfully in other countries, I fail to see why I should not do likewise. Like all other appliances, care and tact are necessary in its use, and one has to find out for himself what *not* to do, as well as the ordinary procedure.

One thing is certain, viz., that once a practitioner has performed an operation with the patient on a table, he will very much dislike having to operate under the old *régime*.

## ABSTRACTS FROM FOREIGN JOURNALS.

### LOCALISED ANTHRAX IN SWINE.

Although anthrax is supposed not to be uncommon in swine, there is a form hitherto somewhat overlooked. It is intestinal, involving one or more mesenteric glands, which are increased in size and altered in colour and consistency. The seat of the disease is the small intestine, and its appearance varies with the stage of the disease present. The mesentery shows a yellowish serous infiltration, varying from straw colour to rosy red, there is a diphtheritic deposit in the bowel and a fibrinous one outside, a slight thickening of the coat of the bowel and occasionally slight ulceration surrounded by a hæmorrhagic zone. Sometimes the locality of the disease is confined to the glands of the pharynx, which respond to Ascoli's precipitation reaction. Yet examination of other organs is negative, leading to the supposition that the condition is septicæmic rather than anthracoid, especially when the symptoms during life are mild, indefinite, and vanish as recovery sets in. The greatest care should be exercised in the inspection of swine carcasses, as the risk of overlooking these localised lesions is great. —*Zeit. f. Milch.*

The translator has met with similar cases in which the septicæmic symptoms have entirely masked those of anthrax, and others in which the presence of tuberculosis has so greatly modified them as to make the establishment of the disease difficult. Similar conditions have also been found in cattle. F. E. P.

### EVERSION OF THE UTERUS WITH COTYLEDONARY HYPERTROPHY IN A COW.

Magneron records (*Tijdschrift voor Veeartsenijkunde*) the case of a cow which everted her uterus. The animal had already calved several times normally. The prolapsed uterus, which was normal in volume, showed ten hypertrophied cotyledons having an ellipsoid form and a large peduncle; the large diameter reached 6 4-5th inches, and the small diameter 3 1-5th to 4 inches. These cotyledons were upon the extremity of the uterine horn alone; those of middle part and of the body of the uterus were rare, atrophied, destitute of peduncles, and smooth upon their surfaces.

The uterus was carefully cleansed, and then replaced after great difficulty. Recurrence of the prolapse was almost inevitable, the presence of the hypertrophied cotyledons being a permanent cause of straining. Some time afterwards prolapse again appeared; and slaughter was decided upon in preference to amputating the uterus. —(*Annales de Méd. Vét.*)

# SPONTANEOUS FLOW OF MILK AND ITS TREATMENT BY COLLODION.

Giovanoli discusses (*Schweizer Archiv*) the serious infirmity which affects certain milch cows, whose milk flows away spontaneously in consequence of insufficient action of the sphincter at the extreme end of the teat. He condemns the employment of a caoutchouc ring, which may occasion grave accidents to the teat. Instead, he recommends the use of collodion, which he paints upon the inferior third of the teat, after milking and then well drying the teat. The retraction produced by the desiccation the collodion causes a diminution in the calibre of the milk canal, and impedes the spontaneous flowing away of the milk.—(*Annales de Méd. Vét.*)

W. R. C.

## NATIONAL VETERINARY MEDICAL ASSOCIATION. (NORTHERN BRANCH).

The first meeting of the Branch was held at the Grand Hotel, Manchester, on December 5th. Present: Messrs. Brittlebank, Dawes, Dr. Bradley, Bowes, Munro, jun., Pillers, McKinna, Sampson, Lloyd, Mattinson, A. M. Munro, Giblin, Abson, Wolstenholme, Prof. Share-Jones, W. A. Taylor, Hopkins, Stent, Garnett, Clarkson, Locke, Brooke, Dobie, Wilson, Walker, Richardson, Blakemore, Woods, and Lawson.

Apologies for absence were received from: Prof. McCall, Messrs. Malcolm, DeVine, Hobday, Wharam, McCarmick, Mason, Gould, and T. E. Jones.

Mr. F. W. Garnett was voted to the chair, and Mr. J. Clarkson acted as Secretary during the election of officers.

Proposed by Mr. J. W. Brittlebank, seconded by Mr. J. B. Wolstenholme, and carried unanimously,

"That Mr. W. A. TAYLOR, Manchester, be President of the Branch."

Proposed by Mr. J. McKinna, seconded by Mr. E. H. Stent, and carried unanimously,

"That Mr. A. W. NOEL PILLERS be Hon. Secretary of the Branch."

Proposed by Mr. A. Richardson, seconded by Mr. H. Locke, and carried unanimously that,

"The representatives from each Division of the Northern Branch on the Council of the N.V.M.A. be the Council of the Northern Branch."

Proposed by Mr. Richardson, seconded by Prof. J. T. Share-Jones, and carried unanimously, that:

"The Council meet at an early date to consider bye-laws, which would be drawn up by Mr. Richardson and circulated by the Secretary before the next Council meeting."

Proposed by Mr. H. J. Dawes, seconded by Mr. W. H. Brooke, and carried unanimously, that,

"The meetings of the Branch be held in various towns suitable to the various Divisions."

Proposed by Mr. Richardson, seconded by Prof. J. T. Share-Jones, and carried unanimously, that,

"The Secretary be instructed to write the Treasurer of the National Veterinary Medical Association asking for finance which was necessary for the Branch to do any real good."

A. W. NOEL PILLERS, Hon. Sec.

# VETERINARY MEDICAL ASSOCIATION OF IRELAND.

The quarterly meeting was held in the Gresham Hotel on Wednesday, Nov. 20th, at 7.30 p.m. There were present: Mr. P. J. Howard, President, in the chair, also Messrs. J. McKenny, J. Holland, L. M. Magee, Rd. Ebbitt, E. C. Winter (F), W. Cargill Patrick, W. H. Wilkinson, G. Richardson, A. Watson, J. F. Craig (Treas.), F. A. Heney, F. C. Mason, P. D. Reavy, J. Smith, W. H. Bradley, and R. H. Lambert. Visitors: B. Harvey Mellon, H. McConnell.

Apologies for non-attendance were received from Messrs. M. Hedley (F), T. G. Relf, T. McGuinness, A. J. Moffett, J. Ewing Johnson, and J. Chambers.

The minutes of the meeting held in August were confirmed and signed.

Mr. F. J. SHEARMAN, of Kilkenny, and Mr. JOHN S. FITZGERALD, of Tipperary, were nominated by Mr. P. J. Howard and seconded by Mr. J. McKenny.

Mr. A. F. Good, of Aherlow, Aherla, Co. Cork, was unanimously elected a member of the Association.

A vote of congratulation was passed to Mr. McKenny on his return to the meetings after his accident.

## CORRESPONDENCE.

Letter from Mr. Stockman asking for names of subscribers to the fund for the Tenth International Congress, 1914. Names of members present who were willing to be subscribers were taken.

Letter from Mr. Shipley asking that a branch committee of the Victoria Veterinary Benevolent Fund should be started in Ireland for the "consideration and recommendation of applications and the furtherance of our fund in Ireland." It was agreed that such Committee should be formed, and the following were elected Messrs. J. A. Thompson, P. J. Howard, J. F. Healy, J. J. O'Connor, and P. D. Reavy. Names of new subscribers to the fund were taken, to be forwarded to Mr. Shipley.

Letter was read from the South Eastern Veterinary Association with reference to fees paid to veterinary surgeons by insurance companies, and enclosing a "proposed scale of fees to veterinary surgeons for services rendered to insurance companies." The Hon. Secretary was instructed to send a letter of approval and a promise of support.

Letter from Mr. Haffield resigning membership. The Secretary was instructed to write asking Mr. Haffield to reconsider his resignation.

Consequent on this it was resolved that Messrs. Craig, Watson, and O'Connor interview the veterinary staff of the D.A.T.I. with a view to having them attend the meetings better.

## MINUTES OF COUNCIL MEETING.

A meeting of the Council of the V.M.A.I. was held in the Royal Veterinary College on Nov. 1st, at 5.30 p.m. There were present, Mr. Howard in the chair, Professor Craig and O'Connor; Messrs. Heney, McKenny, R. H. Lambert, Wilkinson, and P. D. Reavy.

Apologies were received from Messrs. Dunlop, Holland, Cargill Patrick, and Col. Steel.

The minutes of Council meeting held on July 17th were read, confirmed, and signed.

A letter was received from the Secretary to the 10th International Congress (Mr. Stockman) acknowledging promise of support from the V.M.A.I., and requesting that a subscription list amongst members be started. Letter was ordered to be read at general meeting.

Letter was received from Mr. Shipley, Secretary to the Victoria Veterinary Benevolent Fund requesting that a branch committee be formed in Ireland, and enclosing a

list of Irish subscribers. It was ordered that this letter be read at general meeting and that the following names be suggested: Messrs. Thompson, Howard, Healy, O'Connor, and Reavy.

Letter was received from the Secretary to the Congress at York requesting that delegates fee be forwarded. It was ordered that the fee of one guinea be paid.

Letter from Prof. A. Gofton, Secretary to the National Veterinary Association was read, requesting that a meeting of the Irish Branch should be held to elect officers. The Hon. Sec. was instructed to summon a meeting on same evening as the general meeting of the V.M.A.I.

A letter was received from the Secretary to the Co. Dublin Farmers' Association setting forth a scheme to secure the services of a veterinary surgeon in each of the five rural districts in connection with the Farmers' Association who propose to pay a retaining fee. It was ordered that this scheme be brought before the general meeting to be the subject of discussion instead of a paper, and that all practitioners in Dublin be invited to attend, also that each Veterinary Association be asked to send a delegate.

#### DRAFT SCHEME SUBMITTED BY THE CO. DUBLIN FARMERS' ASSOCIATION.

1. That this, the Co. Dublin Farmers' Association appoint one qualified Veterinary Practitioner for each of the five rural districts of the County.

2. That this, the Co. Dublin Farmers' Association, pay a retaining fee to each Veterinary Surgeon appointed, and that he shall attend to all live stock, the property of members.

3. That, in the consideration of the foregoing fee, a special low scale of charges shall be arranged by a Joint Conference, representing the Co. Dublin Farmers' Association and the Veterinary Medical Association of Ireland.

4. That the Veterinary Surgeon appointed for each district shall attend at a given centre in each district at least one day in each week.

After a prolonged discussion, the following resolution was proposed by Mr. E. C. Winter, seconded by Prof. O'Connor, and adopted "That a small Committee be appointed from and by this meeting to confer with a committee of the Co. Dublin Farmers' Association with the object of drawing up a scale of rules and fees in connection with the proposed veterinary scheme in the Co. Dublin, and to report again to the general meeting of this Association. The committee to first confer and consider the scheme before meeting the representatives of the Co. Dublin Farmers' Association."

The following were selected to form the Committee:—Messrs. Howard (President), J. McKenny, A. Watson, J. Doyle, L. M. Magee, W. H. Wilkinson, and Prof. J. J. O'Connor, Hon. Sec.

#### SOUTH DURHAM AND NORTH YORKSHIRE VETERINARY MEDICAL ASSOCIATION.

A meeting was held in the Imperial Hotel, Darlington, on Friday, December 6th, Mr. W. Awde, Stockton-on-Tees, President, in the chair. There were also present: Messrs. P. B. Riley, Barnard Castle; G. R. Dudgeon, Sunderland; E. H. Pratt, Northallerton; J. M. Walker, West Hartlepool; J. Wilson, Yarm; P. Snaith, Bishop Auckland; W. N. Dobbing, C. G. Hill, and J. H. Taylor, Darlington.

Visitor: Mr. F. H. Sanderson, M.R.C.V.S., Darlington.

It was proposed by Mr. Pratt, seconded by Mr. Wilson, and carried, that the minutes of the last meeting as they had appeared in *The Veterinary Record* be taken as read and confirmed.

Mr. BLACKBURN sent a postcard regretting his inability to be present.

#### CLINICAL CASES. HEMORRHAGE: SEPTIC PNEUMONIA.

Mr. RILEY stated that about the end of October he was called in to see a Clydesdale mare, three years old, as she was not feeding well. On arrival he found the mare in a dark box the floor of which was covered with blood, and her mouth and legs were in a similar condition: she could not drink, the fluid returning down her nostrils. He thought that probably he had a case of cleft palate to deal with, in addition to the hæmorrhage, but he could not find out where the bleeding came from. He examined the tongue, teeth, and mouth, but found all normal. He treated the mare with blood tonics and nerve stimulants for a week or so and she commenced to improve, but a little blood came down the left nostril, and what fluid she drank still returned down the nostrils. She was now put to light work for a fortnight, when he was suddenly called to see her, and found her in a dying condition, septic pneumonia having developed.

He found on post-mortem that the soft palate was much thickened and œdematous. He did not think that the respiratory system was at fault at first, and the pneumonia was undoubtedly secondary, but it was a puzzle to him where the bleeding had come from, no cause being discovered to account for it.

#### MARE WITH SWELLING IN PHARYNX.

Mr. PRATT had recently been called to a carting mare with foal at foot. She looked healthy except for being thin, and on examination he found that she could not swallow the grass she pulled. Got the grass into her mouth, and it appeared to pass up one side of her mouth and return down the other side, with the result that there was line of partly masticated food where she was grazing. The secretion of milk had almost stopped, and the foal was suffering in consequence.

He had her removed to his infirmary and after casting her, made an examination of the mouth, and found a large swelling, like a pharyngeal abscess, at the back of the mouth. He punctured the swelling with a seton needle and it seemed to collapse like a bladder, and there was no more trouble; the mare commenced to improve, and she came to her milk and fed the foal.

#### HORSE WITH FOREIGN BODY AT BACK OF MOUTH.

Mr. HILL was called in to a horse which could not eat, the food being passed down the nostrils. He took out a piece of stick which had become foetid, and had been fixed at the back of the mouth. Afterwards he treated the horse with nerve tonics, and a good recovery was the result.

#### CORRESPONDENCE.

A letter from Mr. Theo. C. Toope, Hon. Sec. S.E.V.A. thanking the Association for sending him particulars of fees paid to veterinary inspectors by the County Councils of Durham and the North Riding of Yorkshire. This letter stated that the effort made by the S.E.V.A. with the Kent County Council had been very successful, and with the exception of the mileage charge, they had got all the increased fees they had asked for.

Mr. Toope enclosed a scale of fees drawn up by the S.E.V.A. with reference to fees paid by Insurance Companies to veterinary surgeons, and asking the Association for their support.

A further letter from Mr. Toope, which stated that the question of fees paid by County Councils to their inspectors was now receiving the attention of the National Veterinary Association, and that sub-committee had been appointed to go into the matter thoroughly. He had enclosed three forms which he desired being filled in by County Council inspectors so

that the fees paid might be tabulated for comparison with the revised scale of fees paid by the Kent County Council. These forms had been sent to the Chief Veterinary Inspectors for Durham County, the North Riding of Yorkshire, and Northumberland.

Mr. WILSON, in opening a discussion, said that he held very strong views with reference to fees paid by Insurance Companies and County Councils. In his opinion it was an insult to the profession to offer such fees for examining animals as some Insurance Companies had the insolence to do, and he thought when a fee of, say, 2/6 was offered for a report upon an animal which, perhaps, might be a mile or so away from the surgery, that they ought to stand firmly together, and refuse point blank to undertake the work. He for one did so, but he feared others did not.

Mr. HILL said that it had often occurred to him that whilst at meeting after meeting, various diseases were discussed, and other things talked about, the financial side of our profession never seemed to receive the least attention. He was surprised to hear that County Councils paid such small fees, and inspectors appeared to work for these authorities for a much less fee than they would charge an ordinary client, which was to his mind ridiculous. Inspectors should approach the County Councils for an increase, and refuse to work for the fees at present offered.

Mr. DUDGEON said that many years ago he stated in a presidential address read before another Association that what we were in want of more than anything else, if we wanted to improve our position financially, was more of what he might call "Trade Unionism." It appeared to him that we were gradually coming round to the idea he had then expressed, and still believed in. For some years now he had absolutely refused to work for Insurance Companies, as the fees offered were inadequate.

Mr. AWDE said that his experience was that if the Insurance Companies had an animal to examine near his surgery an official of the company usually did the work, but if it was some distance away he was asked to go for a small fee. He had often refused to act. He appeared to be employed when it suited the convenience of the company.

Mr. SMITH remarked that he was once in a farm attending a mare with a weak heart, and when he told his client about it he said "Oh, I must get her insured before she foals." "Don't ask me to examine her," replied Mr. Smith. Sometime afterwards when visiting the farm he learned that the mare had been insured. His experience was like that of Mr. Awde's, in that he had often been asked to examine animals a long way from home, whilst those near at hand were examined by the Company themselves.

Mr. DUDGEON moved that "The action of the South Eastern Veterinary Association be supported and that no less fees be accepted than those which they had advocated, and that they be requested to refer the matter to the National Veterinary Association," this was seconded by Mr. HILL and carried unanimously.

#### FEES PAID TO VETERINARY INSPECTORS BY COUNTY COUNCILS.

Mr. AWDE, in opening the discussion, remarked that some years ago this matter was gone into by the Association, and both the Durham and North Riding County Councils were approached with the result that a slightly increased fee was allowed by the North Riding Authorities, but the Durham County Council would make no alteration, as they said that on inquiry they found that the fees they were paying were about the same as other similar bodies were giving.

Mr. SNAITH remarked that of late years much more work was demanded from inspectors in respect of micro-

scopical examinations of blood, hair and skin, which certainly demanded more remuneration.

Mr. WALKER thought that each County Council should grant retaining fees to their inspectors in addition to fees paid when called in to a case. He had a retaining fee from his Local Authority which he had enjoyed for many years.

The discussion was continued in a general manner for a considerable length of time, all the speakers being in favour of some action being at once taken, and ultimately the following resolutions were unanimously carried:

1. Mr. DUDGEON proposed, and Mr. WILSON seconded, "That a sub-committee of this Association be appointed to consider with the Veterinary Inspectors of Durham County and the North Riding of Yorkshire the fees paid by the County Councils, and to report to the next meeting of the Association."

2. Mr. AWDE proposed, and Mr. RILEY seconded, that the sub-committee consist of Messrs. Wilson, Hill, Forbes, and the Secretary.

The SECRETARY stated that he would obtain a list of all the inspectors for the two County Councils, and arrange the meeting for December 20th, which would be that day fortnight.

Time would not permit the President to give his promised paper "On the recent outbreak of Foot-and-mouth disease in Northumberland," and it was consequently deferred to the next meeting.

The members afterwards had tea together in the hotel.

JAMES H. TAYLOR, Hon. Sec.

#### STERILITY AND IMPOTENCE IN MALE DOMESTIC ANIMALS.\*

By THOMAS H. DALE, M.R.C.V.S.,

Government Veterinary Officer, Potchefstroom.

The disabilities Sterility and Impotence in domestic animals is the cause of an enormous annual loss to the stock-breeder and farmer. The loss to the individual is perhaps not great, but the aggregate amounts to a very large figure, as the condition is a very common one, and unless the animal is of value, attempt at treatment is seldom made. The literature on the subject is scrappy and most superficial, and usually deals with female sterility only, in fact it is only within recent times that much attention has been paid to male sterility even in human medicine, although there can be no doubt that the percentage where the male is at fault is very much greater than is generally suspected. Although the subject covers a very wide field, it was originally intended that this paper should include the disabilities of both sexes, but the amount of matter, collected over a number of years, when reviewed, threatened to exceed the limits of a paper, and necessitated cutting the subject in halves and dealing with male incompetence only. In a recent paper on "Sterility," by Mr. Wm. Brown, M.R.C.V.S., read before the members of the North of Scotland Veterinary Medical Society and which appeared in *The Veterinary Record* of March 9th, 1912, sterility is defined as "the incapacity on the part of an animal to reproduce its species." Broadly this may serve, but an animal may be fertile yet impotent, and thus be unable to reproduce its kind, therefore it will be best to divide the subject. Although both sterility and impotence may exist together they can also exist separately, in fact my experience, extending over a period of twenty years, shows that an impotent male is rarely sterile and a sterile one seldom impotent. It

\* Read at the eighth annual general meeting of the Transvaal V.M.A., held in a Pretoria, August 1-3.

will therefore perhaps be better to define a sterile male as one in which there is some defect in the seminal fluid, the essential fertilising agent; and an impotent male as one in which there is some defect in the sexual apparatus. This latter is not necessarily of a physical nature, as impotence in a large majority of cases is of nervous origin, or is due to a lack of cohesion between the nervous and physical attributes, which only when acting simultaneously are able to produce the orgasm which concludes the act of copulation and causes proper ejaculation of the seminal fluid.

#### STERILITY.

Although the percentage of cases of sterility in the male is not so great as in the opposite sex, the conditions which cause it are more diversified and are invariably more complex, diagnosis is difficult, and the prognosis cannot be other than a tentative one, but in the following pages an attempt will be made to consider these conditions and also those which are the cause of impotence.

Sterility may be permanent or temporary, and the first thing to be done is to make a physical or manual examination with a view to ascertain whether there is any deficiency or abnormality of the essential organs. Of course, it goes without saying that a castrated animal is permanently sterile, this was intended; so also those in which the operation of vasectomy has been performed, which one often comes across in this country in Arabs and other imported horses of Eastern blood. In these cases great care must be exercised, for as the testicles are present a cursory examination may lead one to conclude that these organs, at any rate, are not the cause of the sterility. Manipulation will reveal the fact that they are abnormally large, that there is a thickening of the epididymis and the spermatic cord, and that in the majority of cases there is no retraction when touched. In many of these cases desire is present, as it is in geldings in which the epididymis or a portion of it has been left when castrated; coitus is possible and often occurs, although the act is not completed, there is no orgasm and the small amount of fluid which is discharged consists of the secretions from the seminal vesicles, Cowper's, and the smaller mucous glands of the urethra. But in these cases microscopic examination will at once reveal the nature of the emission and is the only conclusive test. The majority of cryptorchids are able to accomplish the sexual act with apparent satisfaction to themselves, and many are fertile, but cases occur in which they are sterile, and it is a curious fact that many are fertile at two and three years old but become sterile as they mature. Desire, however, is not diminished, in fact in many cases it appears to be exaggerated.

Injuries involving both testicles or their ducts often cause permanent sterility, and several cases in bulls have come under my notice where fibroid changes have taken place after inflammation of the testicles following injury usually caused by the animal attempting to jump a gate or fence. Any thickening of the epididymis should be looked on with suspicion, especially if both be involved, but a hasty judgement must not be formed, the aid of the microscope will be of service and will determine whether zoosperms are present or not. One case has come under my notice in which a stallion that had worn a ring for several years with the object of preventing self abuse, proved to be sterile when an attempt to breed from it was made; this may have been coincidence, or the animal may have been able to obtain partial erection and emissions of semen may have taken place, in which case function may have been lost owing to back pressure, or the semen may have escaped backward into the bladder and dribbled away afterwards or have been voided with the urine. Several cases of congenital *Azoospermia* or total absence of spermatozoa

from the seminal fluid have come under my notice in both thoroughbred horses and dogs, these cases being distinct from others in which the testicles are confined in either the abdominal cavity or the inguinal canal, in which situation they may fail to develop or may atrophy either from strangulation of their nutrient vessels, or from pressure on the testicle itself. The cases to which I refer showed no apparent abnormality, and the external genitals were in each case well formed and normal in situation, and in every case desire was present, the sexual act being performed in a perfectly normal manner, in fact the only circumstance which pointed to the sterility was the absence of results. Microscopic examination of the semen in each revealed the total absence of spermatozoa, a condition which I regret to say remained, in spite of the several attempts at treatment.

These cases, again, must not be confused with a condition which is quite common after biliary fever in horses, redwater and gallsickness in cattle, and biliary fever and distemper in dogs. In these cases the azoospermia is acquired, is usually of a temporary nature, and is amenable to treatment.

*Obesity* has long been known as a cause of sterility in live stock, but with proper management the condition is usually of a temporary nature. The semen contains zoosperms in reduced quantity, but the majority of these are non-motile or only feebly so, and have no progressive movement, although they may oscillate feebly. On the reduction of the excessive fatness fertility is usually re-established, except in isolated instances where possibly atrophy or degeneration of the testicle in common with other organs may have taken place.

*Pus in seminal fluid.* This may cause sterility of either a temporary or permanent character; the zoosperms are usually dead or only slightly motile, and do not progress, others again are deformed, and a mixed infection of micro-organisms is usually present. These cases are not common in the lower animals, in fact compared with man they are rare, gonorrhoea possibly accounting for the difference. In the animals with which we have to deal a urethritis is probably the primary lesion, with secondary infection to the seminal vesicles or the epididymis, or both. There may be no abnormality in the testicle itself, the spermatozoa being killed by the toxins liberated by the micro-organisms present; these vary in character. In a case which I have at present under treatment, a streptococcus is possibly the destroying agent, but a bacillus and cocci of sorts are also present; an attempt has been made to grow and isolate these organisms on artificial media with a view to the production of anti-toxin, but so far without success; a second attempt is now being made but sufficient time has not elapsed for anything definite to result. In the meanwhile, the animal which was sterile only at first, has gradually become impotent, imperfect erection is attained and ejaculation does not take place, the semen dribbling away after withdrawal. These cases are invariably unsatisfactory, difficulty is experienced in locating the site of the trouble.

In another case, that of a pure-bred shorthorn bull, there was a constant dribbling from the urethral opening, differing in this respect from the case of the stallion just quoted in which there was a total absence of discharge. Manual examination failed to reveal any abnormality of the external genitals, the animal was healthy, but had been unthrifty from a calf, and microscopic examination of the discharge, which very much resembled milk in consistence and colour, proved it to be pus with a mixed infection of micro-organisms, of which a staphylococcus was the most numerous; the seminal fluid also contained pus elements and organisms, and as the prognosis was unfavourable no attempt at treatment was made.

Post-mortem examination revealed a condition that



was interesting and justified the slaughter of the animal, an enormous abscess was found extending from the umbilicus to the urinary bladder, surrounding its neck, and involving the seminal vesicles and other adjacent glands, where its purulent contents discharged through a sinus-like opening into the urethra. It was then recalled by the attendant that soon after birth the calf had a septic navel which discharged for some weeks, but afterwards healed externally; the animal had never been thrifty but this was in no way attributed to the navel. Most probably the urachus, becoming septic, persisted, and as the pressure from the contained pus increased an outlet was found in the urethra. No line of treatment can be recommended in a case of this sort, it is sufficient if we are able to point out to the client the uselessness of attempting any.

*Incompatibility.*—That sterility is ever due to sexual incompatibility is denied by many, that is, incompatibility without organic or functional derangement of the sexual organs of either the male or the female, but that it exists—that it is one of the disharmonies of *Metchnikoff*—those who have had large experience in the breeding of stock can well bear witness. An exceedingly potent stallion, leaving a high percentage of foals, fails to stint one particular mare that comes to him over and over again; she is then put to a stallion not specially noted for “stopping” his mares, but she holds to the first service. What is this? If not incompatibility, what is it? The term may be a convenient one for saying we do not know, but the fact remains. Instances are common, both animals are fertile when coupled with other mates, but together, for no apparent reason they are sterile. This phase of the subject gives much food for thought, opens up fields for experimental work, observation and research, but its treatment in this paper could only be suggestive, although it is hoped that at some future date it will be possible to communicate material towards elucidating a question to which at the present time there is no answer.

This almost disposes of the commoner causes of sterility pure and simple, but there are many cases and causes of impotence which may make the animal for all practical purposes temporarily, or even permanently sterile. Many of these if intelligently approached will be found to be amenable to treatment. Functional disorder and psychic aberration account for many of the cases with which we are called upon to deal, and although it is common to hear excuses for this condition in man, the main one perhaps being that he leads an essentially artificial life, it must not be forgotten that the modern domestic animal, be it Thoroughbred stallion, Shorthorn, or Ayrshire bull, Berkshire pig or Collie dog, all leads an equally different life from his progenitors; it is therefore not outside the bounds of possibility that similar causes, even if in less degree, tend to produce a like result. And that this is so there can be no manner of doubt, it is rare to find either sterility or impotence in common bred stock or in wild animals; it is fairly common in those which are well-bred and nervously high strung. It is highly probable, however, that this has nothing to do with a long pedigree or consanguinity, but that the value of the animal and its forbears has lifted them into a sphere where everything is artificial, food, shelter, clothing, even the seasons of sexual activity are controlled. But in addition to this, in this country and others that are cursed with diseases which lower the blood count, which leave an anæmia that takes weeks and even months to overcome and outgrow, impotence is often a sequel, even after the patient has apparently regained the condition lost, or as a result of careful and efficient nursing has surpassed it. In the majority of these cases a favourable prognosis can be given with confidence, all that is required is an appropriate sexual stimulant, which need not be continued after a result is attained, for it is found

that once potency is established, there is no further trouble. Redwater and gall-sickness in cattle, and biliary fever in horses and dogs are the commonest causes of this condition in South Africa, but other cases are met with the causes of which are obscure. A stallion or a bull for instance is imported from Europe, stands the voyage well, arrives in excellent condition; when required for service, however, the importer or owner finds to his dismay that although a certain amount of desire is present, the animal is impotent. Although attempt is made the animal is unable to complete the act, either penetration does not take place, or if it does, there is no orgasm or ejaculation. In the majority of these cases, if the animal is segregated for a period from the other sex recovery of power is attained spontaneously, failing this a reliable aphrodisiac will, as a rule, secure the desired result. The cause of this temporary disability is obscure, it is usual and customary to ascribe it to climatic conditions or change of food, or both combined. It may be so, or it may be a convenient way of saying that we do not know.

Cases of a psychical nature are not uncommon, where a young stallion appears to be impotent and where in spite of much patience and perseverance on the part of the attendant the animal cannot be induced to attempt service. In some cases a young and nervous stallion is unfortunate enough to be put to a mare that is not ready for him, or to one that habitually kicks on the approach of the stallion, should he in addition receive a sharp rap or two, the remembrance of it may cause him to lose confidence in himself. In these cases a mare that takes the stallion kindly should be provided, and a good alcoholic stimulant administered about fifteen minutes before; this, however, must not be overdone, only sufficient must be given to produce a “devil-may-care” feeling, and it will be found in the majority of cases that this method will be successful. Aphrodisiacs or venereal stimulants are not indicated in these cases, and if a diffusible stimulant does not give the required confidence, Bromide administered in the drinking water for two or three days should be tried, and it will invariably be found that confidence will be restored, an efficient service will be rendered, and that after the first successful attempt no further trouble is met with. Other instances of relative impotence which often give trouble are those met with in old stallions that take a dislike to one particular mare or type of mare. For instance, a stallion will have nothing to do with a mare that is suckling a foal, in fact cases occur where the stallion will savage and kick such an one. In these cases the difficulty may be overcome by exciting the horse with a mare for which he has shown preference, and then substituting the one required to be served, but this method is not always successful, and in these cases much time will be saved if the stallion is allowed to serve another mare, and to take advantage of this and artificially inseminate the rejected.

Phimosis in the bull and dog is not uncommon, especially in the latter, and may cause temporary impotence, but the treatment is indicated by the condition and presents no difficulty. Balanitis also, if neglected, occasionally results in lesions which require attention, but the treatment will be indicated by the extent of the lesions and requires no description in this paper.

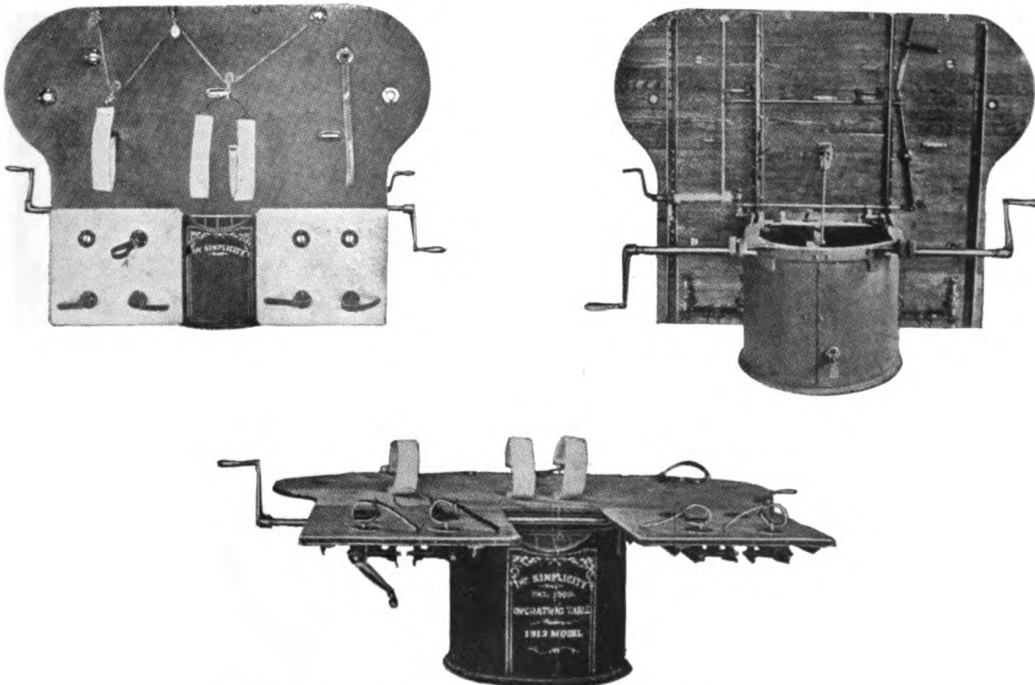
In the treatment of sterility and impotence it is necessary, in addition, to carefully consider the history of the case, to make a special manual examination not only of the external genitals but also per rectum, and it is essential that at least one service, or an attempt at it, should be witnessed, for it commonly occurs that the owner or attendant states and is convinced that a normal service is accomplished, many cases exist, however, where there is no orgasm, the semen, if it is discharged at all, dribbling away, most of it being lost after withdrawal, and although impregnation can take place under





SALIVARY CALCULUS IN STENON'S DUCT.

Note by Capt. E. P. Argyle, A.V.C.



THE "SIMPLICITY" OPERATING TABLE.

Notes by E. Wallis Hoare, F.R.C.V.S.



these circumstances, provided the semen contains living spermatozoa, it will be found in the majority of cases that the condition described is merely a symptom of more serious trouble. And here it cannot be too strongly pointed out that no examination is complete until an exhaustive microscopic examination has been made. Should proper ejaculation take place it may be necessary to collect a quantity of the discharged semen from the floor of the vagina, this is most easily accomplished with the aid of any one of the instruments sold for artificial insemination; but if this course is adopted, care must be taken to exclude from one's reckoning any organisms which may have been in the vagina before coitus. If, as often happens, there is a dribbling after withdrawal, its collection becomes an easy matter, but by whatever method the semen is obtained, examination should take place at once, everything being in readiness, and care being taken, during cold weather at any rate, to have the slides kept at about blood heat, as cold quickly destroys the vitality of the zoosperms and causes them to "nest" or run together in clumps, when a wrong diagnosis may result.

It will be unnecessary to describe healthy semen under the microscope, but it will be as well to point out that in addition to enormous quantities of spermatozoa, which should be actively motile and show rapid progressive movement, other elements abound which have been mistaken for objects of pathogenic significance. Seminal cells may be mistaken for pus corpuscles, seminal granules for micrococci, epithelium is always found in healthy semen, and as it comes from any part or all parts of the urino-genital passages varies considerably in form; transparent crystals are also occasionally seen in perfectly healthy and normal semen. In the case of spermatozoa which have died after emission it will invariably be found that they die with a perfectly straight tail, or at most only slightly curved, whilst those which are dead before emission are deformed, or their tails are bent at a right angles, or coiled on themselves, and this is important when examining stained specimens, for although the condition of the zoosperm can be studied best immediately after emission this is not always possible, and this difference in after-death appearance may materially assist in forming a diagnosis. Having thoroughly examined the living spermatozoa the slide should be allowed to dry, and should then be fixed. This may be done either in the flame or with absolute alcohol, the latter possibly being preferable—and afterwards stained by any of the ordinary methods. Löffler's methylene-blue, Gram, or Giemsa give good results, the first and last are easy to manipulate, and Giemsa possibly gives the best all-round results in the hands of those not expert in bacteriological manipulative methods. Examination with an oil immersion lens at once reveals the absence or presence of the pus forming organism, and should there be any present, the condition of the zoosperms at the first examination in conjunction may give some clue to the gland or portion of the urino-genital tract which is infected and involved. If they are dead or malformed it is highly probable that the septic area is either the vesicular seminales, the prostate or the deep-seated urethra, dead, deformed, or both dead and deformed zoosperms without the presence of pus forming organisms, usually may be interpreted to mean that some morbid change has taken place in the testicle itself, and further manual examination should be made with a view to ascertain whether atrophy of these organs or one of them is taking place. It will be unnecessary to point out that if one testicle is so affected that no spermatozoa are thrown off, there will be a very considerable decrease in the relative numbers of spermatozoa found in the semen, owing to the fact that the secretions from the subsidiary glands may not be affected and therefore the quantity of semen ejaculated may approximate

the normal. As the secretions from the prostate, the seminal vesicles and possibly other glands all assist in forming a suitable medium for the effective conveyance of the spermatozoa, it is conceivable that any condition which may have altered the character or consistence of any one of these secretions might vitally affect them. From the foregoing remarks it will be seen that the only conclusive test of fertility is the presence of active healthy zoosperms in the seminal fluid, which must be demonstrated by the microscope. If these are present, impotence, however marked or from whatever cause, must be attacked with every hope that the sexual power will be restored, and to start with the general condition of the animal must be taken into account. The majority of stud animals are much too fat for the purpose of begetting healthy stock; they are more fitted for the show pen than the stud, and in all cases of sterility or impotence except in those cases resulting from debility or as a sequel to some disease, regular moderate exercise must be prescribed, and the food ration regulated; small doses of Mag. sulph. should be prescribed in the drinking water morning and evening, one ounce will be sufficient for a stallion, with double the quantity for bulls, other drugs being included in the treatment suitable to individual cases. But the fact must not be overlooked that in many cases of impotence no drugs are required, especially in this country, where the management of highly bred stock is little understood. In many of these cases advice as to general management, feeding, etc. will be all that is required, although it is possible that this line of treatment might transfer the sterility from the patient to the ledger. There are drugs, however, which can be used to advantage in the many diverse conditions which are the cause of impotence, aperiens where obesity is the cause; stimulants both diffusible and venereal where indicated; sedatives again have their uses, and of course tonics where the general system requires bracing up.

*Phosphorus, Strychnine and Iron*, especially the first two have been largely used in the past as aphrodisiacs but it is extremely questionable whether they have any specific action on the genital organs themselves or the centre which controls sexual desire, that they are suitable tonics, either separately or in combination, where there is a lack of general vigour, goes without saying, and in these cases their administration cannot be otherwise than of benefit.

*Cantharides* is one of the oldest reputed aphrodisiacs, but it is not an aphrodisiac in the true sense of the word, its action being reflex, and mainly depending on its irritant action on the urino-genital tract, this action is uncertain, and seldom produced unless the drug is exhibited in dangerously large doses.

*Damiana* is reputed to be a nerve tonic of great value in sexual debility and functional impotence, and is usually dispensed in conjunction with phosphorus, strychnine and other tonics; that it is of very great assistance in many instances there is no doubt, but its action appears to be uncertain, or it may be that some of the cases in which it was used were unsuitable for it must be remembered that once a drug gets a reputation it is administered to every case whether male or female, without enquiring as to the cause of the condition. Mr. Reginald Bourlay, the poultry expert for the Transvaal Province, informs me that he has used this drug in connection with poultry for the past three years and has also experimented with it in one or two other directions. It frequently occurs that a male bird during the earlier part of the breeding season, does not pay sufficient attention to his hens, with the result that many of the eggs are unfertile, and in such cases he has never known *Damiana* to fail during the time he has used it. One grain doses given at intervals of two days for a week or ten days have always put matters right, and the cocks having once started working continue to

fill their eggs satisfactorily. He has also administered the drug to turkeys with equally satisfactory results, but in the case of geese there was no response, though possibly this may not have been due to the inefficacy of the drug, but to the fact that the females were too fat, which would to a great extent account for the sterility. With ostriches also the results were equally unsatisfactory, though five grain doses were given, but as in the case of the geese, he believes the females were too fat. Mr. Bourlay also on one occasion gave a dog which was slow in serving, two grains of Damiana, the effect of the drug is described as marvellous, for within a few hours he was rampant, and during the whole of the following day was endeavouring to line the bitch every few minutes, though naturally his efforts were only occasionally successful.

*Yohimbine*, also on the market as *Aphrodine*, is an alkaloid obtained from the bark of the Yohimbe tree (*Coryanthe yohimbi*) growing in the Cameroons, and belonging to the natural order Rubiaceae. The results obtained by numerous practitioners both in human and veterinary medicine are diverse, and almost lead one to think that the samples experimented with were not reliable or that the active principle had been lost or changed, or at any rate requires standardising. The writer has had good results, and experience of the drug shows it to be a powerful aphrodisiac, when properly regulated doses are given. It is said to stimulate the erection centre in the spinal cord, and in the human subject it causes marked congestion of the genital organs, especially the testes and penis. Large doses are not required, as, like many other alkaloids, when pushed, toxic symptoms supervene, quite different to those exhibited when administered in medicinal doses. Although it is advertised as a remedy for sterility, it is obvious that there are many cases of sterility in which it can be of no use whatever, and as its action is to stimulate the erection centre only it is certain that its use, although a very helpful one, can be as a remedy in functional impotence only, and especially useful has it been found in the writer's experience in awakening the sexual powers and appetite in apparently healthy animals that have recovered from some serious illness, but which have little or no desire, and even if they have, are unable to accomplish the sexual act. As an instance a valuable imported shorthorn bull passed through an exceptionally severe attack of redwater followed at the usual interval by gallsickness, during which he was kept alive on fresh blood administered per orem, with transfusion into the jugular at intervals. After hanging between life and death for weeks, the animal made a good recovery, and ultimately got into show condition; unfortunately although a certain amount of desire was present, and feeble attempts at service were made, the animal was unable to complete the act. Ordinary tonics were administered, and the animal was turned out on to the veldt to graze, but the effect was not obtained, and eighteen months passed from the onset of the first illness until Yohimbine was prescribed, when after ten days treatment the animal commenced to cover and no further treatment was required; it is also of interest to record that the cow "held" to the first service, which is remarkable after such a long period of continence. Finlay Dun, quoting Holterbach, cites a similar case, and many others can be found recorded in the pages of the different journals—more than sufficient to counteract adverse results which may have been occasioned either by the unsuitability of the case in which it was used, to an inert sample of the drug or other cause.

*Spermin* and *Didymin*, both preparations of the testes, I have not prescribed or used, for it is possible that these extracts may be of value, for it is now known that the testes in addition to producing the zoosperm, also elaborate a secretion which is reabsorbed into the

blood stream and which has a very important bearing on metabolism.

Other substances, drugs, alkaloids and extracts have been used in human practice, several with the object of combating conditions which do not obtain in our patients, and a consideration of them would be of no value. This is a record only of the commoner causes of sterility and impotence in those of the lower animals which man has found it convenient and possible to domesticate; there are other and rarer cases which one may come across and which may be styled accidental—as, for instance, a blow on the head which may cause either temporary or permanent impotence—but which from their rarity are negligible. Luckily for the animals with which we have to deal, they lead far less so-called "animal" lives than a considerable percentage of the human race. It is curious but nevertheless true that the higher a community advances along the lines of civilisation the lower its standard of morality falls. This unfortunately does not apply to the lower orders of it only, impotence and sterility are not incompatible with brains, nor with genius: there are many instances of this; and although acquired venereal disease is the cause in many cases, there can be no doubt that the sins of the fathers are being visited on the children, even to the third and fourth generation and beyond. With this sort of thing we have luckily not to deal, but this fact also makes diagnosis more difficult. There is often no history—every case has to be dealt with on its merits, on the symptoms which our own powers of observation discover. But there is this to be said—that in perhaps no other disability with which we have to deal will we meet with greater appreciation, if successful; for there is nothing more discouraging to the stock-breeder if he be a beginner, or annoying if of established reputation, than to possess a good animal, one possibly good enough to win in the best of company, and to find that it is incapable of passing on those good qualities which make it pre-eminent.

#### Prosecution by the R.C.V.S.

At Saxmundham on Thursday, Dec. 5th, before Mr. W. E. Long (chairman) and Messrs. E. Towers, R. Flick, J. K. Brooke, F. E. Hollond, and Major Pretor Pinney. Edgar S. Leggett, Saxmundham, was summoned for practising as a veterinary surgeon without being registered to do so, at Saxmundham, the prosecution being taken at the instigation of the Royal College of Veterinary Surgeons, on behalf of whom Mr. G. R. Thatcher, Essex Street, Strand, appeared.

Defendant, in pleading not guilty, said he had no intention of doing anything wrong.

The prosecuting solicitor said on a business card defendant had issued he described himself as "E. S. Leggett (late Auger), unlicensed veterinary surgeon." Defendant was not a veterinary surgeon, and was not entitled to describe himself as such. The proceedings were taken under Section 17 of the Act of 1881, which stated that if anyone used the title of veterinary surgeon he was liable to a fine of £20. The only point upon which he had any difficulty was with regard to the word unlicensed. The word unlicensed had no meaning at all, and did not in any way absolve defendant from the use of the title he had given himself of veterinary surgeon. No veterinary surgeon was required to have any licence. The qualification for a veterinary surgeon was the passing of a series of examinations at the Royal College of Veterinary Surgeons, when a diploma was issued. Therefore the calling oneself an unlicensed veterinary surgeon had no more meaning than if an individual called himself an unlicensed solicitor. The only persons entitled to call themselves veterinary surgeons were those who had passed the ex-

aminations he had referred to, those who practised veterinary surgery for five years prior to the passing of the Act of 1881, and those members of the Highland Agricultural Society who practised before the passing of that Act. Defendant could not come within these descriptions, and he had absolutely no right to practise. Mr. Thatcher said that a case similar to this had never previously been heard of.

George Sherrard Gibbons, a clerk, in the employ of the prosecuting solicitor, said he attended at Albion House, Saxmundham, where the defendant lived, on the 20th November, and produced to him one of his business cards. The defendant admitted that was one he had issued. Witness also produced to the Bench a copy of the register of the members of the Royal College of Veterinary Surgeons, and stated that defendant's name was not in it.

Defendant told the Court that he had been practising for 12 years, since his father was killed. As no one purchased Mr. Auger's business in Saxmundham, he knew there was a vacancy there. He was told to describe himself as an unlicensed veterinary surgeon, and he argued it was proof he was not a qualified man or a member of the College of Veterinary Surgeons. A solicitor's clerk advised him to issue his card in the form he had. Everyone who employed him knew full well he was not qualified, and he did not want to make people think he was any more than he was. He declared there were some qualified people about who did not know their trade as well as he did. Although he lived in the same house as Mr. Auger, he did not place his name on the card to make people think that he had bought his business. Defendant added that he once

called himself a horse doctor, but found out that was wrong. He had no intention whatever to break the law.

The Bench having decided to convict, Detective Inspector J. Firman, of the Ipswich Borough Police was called to prove a prior conviction at Ipswich Police Court, where on the 29th October, 1908, defendant was fined £1 or 14 days, for describing himself as a horse doctor.

Defendant was now fined £10, including five guineas costs. Time was allowed for payment.

## Royal College of Veterinary Surgeons.

### FELLOWSHIP DEGREE.

A meeting of the Board of Examiners for this Degree was held at the College, 10 Red Lion Square, W.C., on Saturday, December 7th. The following is a list of the successful candidates, together with the title of their respective Theses:—

Lieut. R. F. STIRLING, East Coast Fever in Rhodesia and its control.  
R. G. ANDERSON, Inflammatory Diseases affecting the udder of the cow.

The Examiners were Messrs. J. Malcolm, W. Hunting, Prof. Macqueen: Mr. W. J. Mulvey being in the chair.

FRED BULLOCK, Secretary.

### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN. Week ended Dec. 7	12		13		1	6	1	1	57	114	20	53	526
Corresponding week in {	1911	22		25	1	19	1	1			17	53	929
	1910		31	38			3	13			14	57	719
	1909		29	46			8	21			31	29	139
Total for 49 weeks, 1912	713		807		83	642	167	308	2680	5637	282	2781	37838
Corresponding period in {	1911	851		1059	19	486	198	478			375	2330	28662
	1910		1374	1638	2	15	336	986			427	1452	13759
	1909		1228	1598			517	1723			592	1575	13730

† Counties affected, animals attacked: Hants 1.

Board of Agriculture and Fisheries, Dec. 10, 1912.

IRELAND. Week ended Dec. 7								Outbreaks			
...	...	...	...	...	...	...	...	1	13	2	3
Corresponding Week in {	1911	...	...	...	...	...	...	1	6	12	67
	1910	...	...	...	...	...	...	...	7	1	46
	1909	...	...	...	...	...	...	2	8	...	...
Total for 49 weeks, 1912	...	3	3	68	380	...	...	61	351	206	1638
Corresponding period in {	1911	...	9	16	...	...	2	3	55	315	2414
	1910	...	7	13	...	...	1	2	63	426	2119
	1909	...	8	3	...	...	...	...	73	381	1562

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Dec. 9, 1912

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

At recent Professional Examinations held at the Royal Veterinary College of Ireland, the following gentlemen passed their Final Examination and were registered M.R.C.V.S. (Members of the Royal College of Veterinary Surgeons):—

Roland Chamberlain Wheeler, 13 Belgrave Rd.,  
Rathmines, Dublin.  
Thomas George Carroll, Market Sq., Baileyboro',  
Co. Cavan.

Wilfred Leo Flanagan, Gwynfrynn, Holyhead.  
Michael Joseph Glynn, Greenhills, Ennis, Co. Clare.  
Michael McClancy, Miltown Malbay, Co. Clare.  
William Henry Power, 26 Lr Newtown Rd., Waterford.  
Thomas Francis Quirke, Pallas House, Donohill,  
Co. Tipperary.

Patrick Joseph Shiel, Hillview, Rathcoole.  
Wm. Patrick Walsh, Broad St., Magherafelt, Co. Down

The following passed their Third Examination:—

Arthur Ernest Brandon	St. John C. P. McFarlan
Thomas Dawson Condell	Mervyn Henry Reid
E. Spread Mulcahy-Morgan	James Shannon
Percy Douglas Huston	

The following passed their Second Examination:

Thos. Aloysius Connolly	George Kelso Shaw
George Joseph Delaney	Robert Hans
Matthew Joseph Flynn	

The following passed their First Examination:—

E. J. Allen	David Mahony
Samuel John Cotton	Michael McCartin
John Magee Currie	Cornelius O'Driscoll *
James Leigh	

Marked thus \* passed with Second Class Honours.

#### PARLIAMENTARY.

##### CATTLE DISEASE IN IRELAND.

In the House of Commons, on Monday, in reply to questions:—

Mr. RUNCIMAN said that last week two cases which were suspected by the Irish Department to be cases of animals that had suffered from foot-and-mouth disease occurred in Dublin. The Irish inspectors succeeded in detecting these animals. The animals were slaughtered and the affected parts were examined, first in Ireland and afterwards in England. There was no doubt that the animals showed lesions of some age, which the veterinary officers of the English Board and independent veterinary surgeons in England declared to be ordinary lesions of foot-and-mouth disease. These had healed, and it was possible that the period of infectivity had passed. But recent experience in Northumberland led the Board to believe that an animal which had recovered did not at once lose its power of infecting healthy stock. In view of the losses suffered by the Northumberland farmers during a series of 30 outbreaks in that county, they thought they could not be too cautious in holding up animals which had been in contact with the two cases from Dublin. Animals which arrived at Dundee were detained there and would remain there till the period of incubation had been safely passed. If at the end of that period they were still free from disease they would pass on to the farms for which they had been purchased. If the animals showed any signs of disease while they were in the quarantine wharf at Dundee that would complicate matters and he was afraid must lead to the destruction of the animals that showed signs of disease. They

could take no risk whatever of introducing the disease in Scotland (cheers), which throughout the whole of these disastrous four or five months for Ireland and for England had been entirely free from disease. (Hear, hear). The cases at Dundee would be carefully watched, and the farmers in the eastern counties of Scotland, who were anxious to get the cattle, would receive them as soon as it was safe for them to be released.

A day or two after they had got rid of these cases their inspectors discovered in a fat animal which had come over from Newry undoubted evidences of lesions. The testimony of the Board's veterinary officers, confirmed by that of three independent veterinary surgeons, showed that the animal must have had foot-and-mouth disease before it left Ireland. They had had five cases in the Newry cargo since the first discovery, and the Irish Department had succeeded in tracking back every one of the animals which came over in the respective shiploads. That had very much cleared the air, and what he proposed to do was to resume the importation into England of fat stock from those districts from which the suspected animals could not have come. He believed that as they now knew the area which had not been under suspicion, and therefore by deduction the area which had been under suspicion, they could safely resume the importation of fat animals without subjecting them to the 14 days' quarantine. The area which was under suspicion had been defined, and communications were passing rapidly between the two Departments, which would, he believed enable the Vice-President to issue an order to-morrow prohibiting movement out of suspected areas. When that was done he would issue an order allowing importation at Bristol, Deptford, Glasgow, Manchester, Cardiff, Hull, Newcastle, Holyhead, Dundee when it was clear, and Birkenhead as soon as it had been thoroughly disinfected. The cattle would be able to come from practically all the Irish ports. With regard to store cattle he would make a statement in a few days.

##### MILK BILL.

Mr. BURNS (Battersea) introduced a Bill to make better provision with respect to the sale of milk and the regulation of dairies.

The Bill was read a first time.

The main objects of the Bill, as stated in the Memorandum, are to provide for—

(1) The more effective registration of dairies and dairymen.

(2) The inspection of dairies and the examination of cows therein.

(3) The prohibition of the supply of milk from a dairy where such a supply has caused or would be likely to cause infectious diseases, including tuberculosis.

(4) The prevention of the sale of tuberculous milk.

(5) The regulation of the importation of milk so as to prevent danger to public health arising therefrom.

(6) The issue of regulations for securing the supply of pure and wholesome milk.

(7) The establishment by local authorities in populous places of milk depots for the sale of milk specially prepared for infants.

The provisions as to registration supersede the provisions as to the registration of dairies contained in the Contagious Diseases (Animals) Acts and the orders made thereunder.

The provisions as to the inspection of dairies and the prohibition of the supply of milk are based on the provisions of the Public Health Scotland Act, 1897.

The Clause as to the prohibition of the sale of tuberculous milk is taken from the model milk clauses, which have been incorporated in many local Acts, but the scope of the enactment is somewhat extended.

The Board of Agriculture and Fisheries propose to issue an order under the Diseases of Animals Act, 1894, dealing with tuberculous cows, and providing for the payment of compensation in cases of slaughter by the local authority. The Treasury are prepared, subject to the assent of Parliament, to sanction the payment from the Exchequer of one half of the net amount paid by way of compensation for a period of five years.

The Bill is published by Messrs. Wyman and Sons, Ltd., Fetter Lane, E.C. Price 2½d.

#### Sir Reginald Pole-Carew, M.P., and the Veterinary Bill.

At the annual meeting of Liskeard branch of Cornwall Farmers' Union on Monday, the Secretary (Mr. P. G. Brown), referring to a resolution passed by the branch at the previous meeting asking the member for the division, Gen. Sir R. Pole-Carew, to reconsider his support of the Veterinary Operations Anaesthetics Bill, said he had received two or three letters from the member stating that he had reconsidered his decision. In fact, he (the Secretary) thought that if it had been put to their member in the first instance he would not have supported it all.

Mr. S. Hignam said he thought a Member of Parliament ought to look into those things before signing.

The Secretary stated that the member reiterated that the Bill was not brought before Parliament by the Veterinary Surgeons, but by the Society for the Prevention of Cruelty, so there was a certain amount of sentiment about it. Their member did not perhaps look at the business side as the farmers had.—*The Western Morning News*.

#### Dispute as to a Veterinary Practice.

In Selkirk Sheriff Court before Hon. Sheriff-Substitute Carmont, proof was closed in an action raised at the instance of Mrs. Elizabeth Sinclair Grant or Robertson, widow of Mr. Walter O. Robertson, vet. surgeon, Selkirk, against Mr. Thomas Matthew, Union Place, Edinburgh, and his son, Mr. Alex. Matthew, veterinary surgeon, now in Government service in South Africa, concluding for payment of £250, the balance alleged to be due by the defenders of the payment for the veterinary practice of the late Mr. Robertson, in Selkirk, transferred after his death to Mr. Alex. Matthew.

For the pursuer it was stated that the agreement come to was that Mr. Matthew, sen., was to pay £250 down, and £250 by half-yearly instalments of £25 each for five years, the latter to be paid by Mr. Matthew, jun., in such instalments to the pursuer, who in return was to do her utmost to further the interests of the business by introducing Mr. Matthew, jun., to the clients. In arriving at the sum of £500 as the value of the practice, it was stated that the figures taken from the ledgers concerning the veterinary practice of the late Mr. Robertson for the three complete years prior to his death showed that the business had yielded round about £500 per annum, and it was on these figures that the price was based.

For the defence the evidence showed that Mr. Matthew sen., purchased the practice on behalf of his son. It was submitted that for some time prior to the death of Mr. Robertson the practice had shown a considerable falling off. It was also contended that the pursuer had failed to implement her part of the agreement to introduce Mr. Matthew, jun., to the clients of her late husband. In making up the price of the practice, the defender understood that the price was made up to the date of Mr. Robertson's death, whereas the figures only applied to the three years ending six months prior to

the death. On behalf of the defenders, figures were submitted to show that between the first and last years of the three years which had been taken there had been a falling off of almost £100 in the fees charged. The case was continued for agents' debate on the closed proof.—*N. B. A.*

#### The Cult of the Horse in Paris.

La Société du Bois de Boulogne desires to close the famous Allée des Acacias against motor-cars for two hours every morning, during the time of the fashionable parade, and to allow only horsed carriages to use the thoroughfare. A committee of the Municipal Council is considering the proposal, and have discussed it with the Society, the President of which, the Comte de Beauchamp, also desires the regulations concerning riding to be altered with a view to bringing the horse again into favour with professional and fashionable Parisian society.—*Horse and Hound*.

#### Personal.

Mr. WM. ALLISON, M.R.C.V.S., of Oak House, Leeds Road, Harrogate, attained his 100th birthday on Wednesday, Dec. 4th. He was born at Washington, Co. Durham, on Dec. 4th, 1813, and was the son of a publican: graduated at the Dick College in 1840, and for some years past has been regarded as the father of the profession. He took a keen interest in agricultural matters, and the Secretary of the Royal Agricultural Society has recently sent congratulations. When the late Queen and Prince Consort visited the Royal Dick College, Prof. Dick introduced Mr. Allison, then a student, to the august visitors, and only the other day, to a valued friend he gave in detail the valuable advice tendered by Her Majesty.

Mr. Allison made a large and successful practice in the County of Durham, and retired to Barnard Castle in 1872 to enjoy the life of a country gentleman. But suffering from ague, he was advised to try the ozone of Harrogate, which completely restored him, and he has now been for 38 years one of our residents. Mr. Allison, despite his years, possesses great decision of character, is well read, and to any good cause properly represented he is a contributor. Mrs. Allison died over twenty-one years ago, and left no family. Mr. Allison has two sisters, both octogenarians, and several nephews and nieces.

Naturally Mr. Allison takes a keen interest in Dick College, and a short time ago contributed one hundred guineas towards its rebuilding, and he anticipates being able to be present at the opening function. He has a kind and generous heart, and in his time has assisted many with their burdens, whilst his professional services were always freely given gratuitously in necessitous cases. Up to four or five years ago he used to ride a dun pony, and always was fond of horses. When a resident of Barnard Castle he hunted regularly, and after he came to Harrogate he followed the hounds. His last run was on his 80th birthday, when he spent a pleasant day in the hunting field on his old grey mare—a favourite. His rooms are adorned with a few rare racing pictures. The late Fred Archer is a prominent figure, whilst another is a capital painting of the famous mare, "Beeswing," the property of Mr. William Orde, with Tommy Lye "up," and who between 1835 and 1842 won some 15 races out of 62 starts.

The old gentleman does not look his age. He is bright and active for his years, and was out a few weeks ago. He clearly remembers some thrilling experiences when journeying by track over the Cheviot Hills en route to Edinburgh College.—*Harrogate Herald*.

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Dec. 6.

REGULAR FORCES. ARMY VETERINARY CORPS.

U. W. F. Walker to be Lieut. (on probation). Dated Dec. 4th.

Dec. 10.

REGULAR FORCES. ARMY VETERINARY CORPS.

Lieut. B. A. Jarvis is seconded for employment with the Egyptian Army. Dated Oct. 4.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. Z. B. Rutherford resigns his commission Dated Dec. 11.

Late Capt. R. F. St. C. Houston.

We regret to report the death on Dec. 6th of Capt. R. F. St. C. Houston, late Army Veterinary Corps. This officer was born on 19th November, 1873, graduated December 21st, 1895, Gazetted Lieutenant Army Veterinary Dept. November 9th, 1898, promoted Captain Nov. 9th, 1903, and retired with a gratuity on March 16th, 1912.

He served throughout the South African War, 1899 to 1902, and was in possession of the Queen's medal with four clasps and King's medal with two clasps. Served also in the North West Frontier of India. Operations in Waziristan.

## OBITUARY

ALFRED WITHERS, M.R.C.V.S., Oxford Street, W.  
Graduated, Lond.: April, 1868.

Mr. Withers died on November 22nd.

ROBERT F. ST. CLAIR HOUSTON, Capt. A.V.C. (retired)  
Lond.: Dec., 1895.

Death occurred on Dec. 6th at West Side, Clapham Common, S.W., from general paralysis, with cerebral hæmorrhage. His age was 39 years.

DAVID MILLAR, M.R.C.V.S., The Brae, Alyth, Perthshire.  
1877, Edin.: Aug., 1879.

Mr. Millar died on Dec. 6th, at 1 Blythswood Square, Glasgow, from cystitis, followed by septic poisoning. Aged 70 years.

A. A. WHITE, M.R.C.V.S., Auchtermuchty, Fifeshire.  
Edin.: Dec., 1904

Death occurred on Dec. 6th from cerebral apoplexy, at the age of 42 years.

ALEXANDER CHIVAS, M.R.C.V.S., Corbridge-on-Tyne.  
Glas.: April, 1876.

Mr. Chivas died on Saturday morning last, from acute bronchitis, at the age of 66. He was a native of Aberdeen, and came to Corbridge 35 years ago. Mr. Chivas was widely known and very popular amongst the agricultural community on Tyneside. He was a trustee of the Corbridge Wesleyan Church, and a Liberal in politics.

The funeral took place on Tuesday at Corbridge Cemetery. The chief mourners were Mr. Renton (son-in-law) Mr. Alex. Chivas (nephew), Mr. Jos Robson, Mr. Jno. Robson, Mr. J. Hamilton (brothers-in-law), Mr. Thos. Robson, Mr. Wm. Robson, Mr. E. Turnbull, Mrs. Douglass, Mr. Aynsley (cousins). Amongst others present were Mr. G. Elphick, Mr. J. Sanderson, Mr. W. C. Croudace, Mr. F. Pickering, and Mr. W. T. Bolton.  
—*The Evening Chronicle*.

## CORRESPONDENCE.

## "COUNTY" VETERINARY CONTRACTS.

Dear Sir,

We are much obliged to you for allowing this matter to be discussed in *The Record*, and as an acknowledgment of your kindness beg to enclose cheque for a year's subscription, to which we have added a guinea—please hand the latter to any Veterinary Charity approved of by you.

We are greatly indebted to the veterinary profession for supporting us so heartily, and we should like to do something in return. Would it meet a want if we formed a really up-to-date Veterinary Library—the books to be lent free of charge except postage? We should be glad to have the views of the profession on this suggestion. Members might write to the undersigned at the address given.—Yours faithfully,

JOHN HETHERTON, Managing Director.

The "County" Stud Farm, Sandburn,  
Stockton-on-the-Forest, York.

December 9th, 1912.

## VETERINARY CONTRACTS AND INSURANCE COMPANIES.

Sir,

It seems that the chief grievance your correspondent Mr. Bloxsome, has against the Live Stock Insurance Company is, that they wish to *profit* by the proposed arrangement, and he generally resents the interference; those objections are both answered by the Insurance Company, who do not wish to make profit out of the veterinary contract," and we have their assurance that no V.S. shall profit at the expense of another through their means.

In my personal communications with the Company I stipulated for a *one-mile* radius, beyond this distance at the rate of 1/- per mile extra for each visit: all inspections for insurance or reinsurance to carry an extra fee, and all operations other than those connected with disease or accident, also to be extra.

Mr. Bloxsome makes a great point of the "whole risk being taken by the V.S." What risk more than that of the ordinary daily practice? It is only an exchange of clients, and the terms offered, viz., payment in advance, surely lessen the monetary risk—"kudos" and save the temptation to tout for business in any way—"sentiment"! the first we cannot afford to ignore, but we shall not do violence to the second if, with self-respect and due consideration to our brethren, we accept a fair remuneration for our services, even through the medium of an Insurance Company.

Apparently Mr. Bloxsome thinks "courtesy" thrown away by the Company in attempting to float their scheme; I cannot agree with him. What would he have said if the Company had canvassed animal-owners *without* consulting the profession, holding out to them terms for a cheaper yearly contract than they were (perhaps) bound to? This they might have done in the fairly certain hope that there are many young and needy practitioners who would be only too glad of the job: on the whole I think there is little fault to be found with the proposals of the Company—they are only human.

In conclusion, sir, allow me to remark there has been a great talk recently asent the dignity of the medical profession in connection with the Insurance Act, but I think the contract of 15/- per horse compares favourably with 8/6 per man, even taking the "risks." (I heard not long ago of a V.S. being content to take 7/6 of a London Horo' Council!)

I still maintain that "sentiment and kudos" are the principal objects in view (although Mr. Bloxsome has found a third—"honest £ s. d."), and if nothing is left but the first, after having attended "one attack of colic" we must be content to take the rough with the smooth, and trust that all our clients are not "beckers and callers"—Yours faithfully,

HENRY DYER.

Blackheath, Dec. 9.



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1276.

DECEMBER 21, 1912.

VOL. XXV.

## THE R.C.V.S. REGISTER, 1913.

The Registrar has already advertised for changes of address for the new Register to be sent to him before the end of this month. Members therefore have still a few days in which to notify their own changes and those of others, and we ask them to do so. There is no need to dwell upon the subject: for every member knows what will happen if he is lost sight of at headquarters. But some forget, and those who are certain of their own places on the Register ought to advise the Registrar of any unreported changes of address within their knowledge. That is the only way to keep the Register accurate. Probably there will always be some members who are careless in reporting their migrations: and the Registrar cannot possibly follow the movements of all. But few would disappear from the list, if their acquaintances in the profession would assist in tracing them.

## EQUINE OPERATING TABLES.

Veterinarians in this country very generally distrust operating tables for the horse. They are costly; they at least appear more complex than the older methods or restraint; and many men think that in securing a horse by one of these machines, and especially in releasing him from it, there is more likelihood of an accident to the patient than when ropes or hobbles are used.

But no one will say that the use of either ropes or hobbles is unattended with danger to the horse; and it must fairly be confessed that very few practitioners in the United Kingdom know enough about equine operating tables to estimate their advantages and drawbacks. Few of our members, unless they have worked abroad, have ever seen an operating table in use. It is fortunate, then, that so prominent a practising clinician as Mr. Wallis Hoare has taken up the question; and his advocacy of operating tables may possibly lead many men to seriously contemplate their use, and may induce others who have already used them to impart their experiences. Few papers would interest and instruct a veterinary society more than one upon equine operating tables, illustrated by drawings and models, by a competent essayist; for there is no doubt that we have neglected them. They undoubtedly are much more conducive to surgical cleanliness than the old method of casting, and this alone is a tremendous advantage. Other advantages may be fairly claimed for them, and it is possible that the objections to them are largely imaginary ones. In America and upon the Continent they are much more popular; and the time may come when the only argument against their general employment in all countries is their price.

## TUBERCULOSIS OF THE UDDER.

Once more Mr. John Burns has brought before Parliament his "Pure Milk Bill," and as the veterinary profession will be called on to carry out some of its provisions a few remarks on pitfalls connected with udder inspection may be opportune.

The symptoms of tubercular mastitis have been given to most of our younger men, and many of us have consulted text-books written by home and foreign writers on this subject.

It is very surprising how meagre the literature connected with the semeiology really is. The person who goes round examining udders with the idea of finding udders with the classical symptoms of tuberculosis will soon find that his theoretical knowledge of the subject will be placed on one side. A few examples—taken from my own experience may prove interesting.

Some time ago I called at a cow-keeper's premises and examined the cow therein. She was old, worn out, had a hollow cough, and the right fore quarter of her udder was hypertrophied and indurated. The milk given by that quarter was normal in appearance.

The diagnosis was tubercular mastitis, and a message was left with the owner's wife that the cow would require to be slaughtered, and failure to do this would mean that the matter would be reported to the Health Committee with a view to prosecution for failing to notify.

The owner readily consented to slaughter, and one of my colleagues was present at the post-mortem, and afterwards informed me that the cow had advanced tuberculosis, but her udder was not affected. The induration of the forequarter was due to the presence of a large hydatid cyst. This case shows the necessity of a biological examination of milk before condemning an animal.

Another case was a cow with an indurated right hind quarter. Serum was all that I could draw from it, and this was submitted to the guinea pig test. The quarter was tuberculous. The absence of pain made me suspicious, but the owner was not satisfied, and firmly asserted that the cause of the condition was a trapped or tramped teat some weeks previously; and he also stated that the udder was very painful and hot after the injury.

Had the udder been examined in the painful state probably no sample would have been taken, and the public would have been poisoned for two months. Post-mortem examination confirmed the biological test.

Still another case showing that every indurated quarter is not tuberculous. This cow had a very

hard udder—being affected high up in the left hind quarter. Milk was drawn from this quarter and tested; with negative results. The owner, however, when the cow was sold for slaughter, gave me the opportunity of examining the baffling specimen, which proved to be a sarcoma.

When discussing this subject it is well to bear in mind that a tuberculous udder does not constantly secrete tuberculous milk.

Dr. Lydia Rabinowich was the first to demonstrate this. But a case to prove this came under my notice where I sampled a cow's milk on two different occasions and found no tubercle bacilli.

Clinical examination led me to believe that the cow was "rotten" so the owner was bluffed into killing the animal. Post-mortem examination showed a calcareous udder, and the peritoneum and mesenteric glands badly affected. It is noteworthy that this cow gave a fair quantity of normal looking milk from the affected quarter.

There is another condition which perplexes those who have to examine udders, namely the super-addition of inflammation to a tuberculous quarter. Such cases are not very common, but one case where the owner had rubbed on some embrocation caused the present owner and his senior colleague to overlook the fact that this cow had a tuberculous udder. This animal was found to be the culprit, after the other four cows in same shed had been tested.

It is as well to mention that the present writer has never met a case of a cow giving tuberculous milk when the udder was not affected.

Actinomycosis of the udder is very difficult to distinguish from tuberculosis and resort should be made to the biological test.

Intestinal mastitis is a common condition and resembles tuberculosis very closely.

When a fore-quarter is affected with tubercle there is usually a marked bulging forward of the quarter, and the present writer at one time made a series of measurements to demonstrate this.

The part of the udder that lies between the two galactophorus sinuses is frequently found affected with tubercle and it is always well to take a sample from an udder showing induration in that position.

The method that Liverpool adopts to keep the milk supply pure is far from ideal, and methinks the "leave-lookers" would be better employed taking samples of milk on the rounds and at the stations. Such methods do not ensure adequate protection to the public; the medical officer and cowkeepers are gulled into believing that tuberculosis is a rare disease; and the two veterinary officers are being robbed of their legitimate work. Perhaps it should not be referred to as work. I consider it a hobby, for the subject is so fascinating, and it is a very small herd indeed where the veterinary officer will not find some interesting condition of the udder.

The udders of recently calved cows offer some difficulty. The plan adopted by the present writer when he came across a herd with several recent calves was to take a sample from the whole herd. During the time the milk was being tested the ordinary congestion of the gland, if normal, would be

gradually subsiding, and if tuberculous the hypertrophy and induration would remain.

It takes long experience to become thoroughly acquainted with all the abnormalities of the mammary gland, and those who have encountered very few tuberculous udders are usually most dogmatic in their opinion whether disease exists or not.

It would be very well if practitioners would co-operate more with the veterinary officers of their district, because I fail to see what good is done by a cowkeeper's veterinarian disputing the opinion of the official—more especially if the practitioner knows that the sample of milk has been submitted to the biological test. A cow with a tuberculous udder will do no good, yet practitioners are ready to come forward and ask that the cow should not be slaughtered. As we cannot treat this disease, we can at least all help in its eradication.

When the Royal College of Veterinary Surgeons grants a Fellowship Diploma in State medicine, I hope to see in the syllabus of subjects "The practical inspection of dairy herds."

W. J. YOUNG, F.R.C.V.S., D.V.S.M. (VICT.)

Edinburgh,

#### CHLOROFORMING HORSES STANDING.

By HENRY GRAY, Kensington, W.

Mr. Chas. Sheather, F.R.C.V.S. is to be congratulated on resuscitating this question, and his contribution is the more valuable because it records his mature experience, which is much better than that after trying a method for a few times. His experience concords generally with mine, which only dates back as far as 1885, when, after reading Mr. Richard Roberts' paper read before a veterinary society in 1884 and appearing afterwards in *The Veterinary Journal*, 1885, I decided to put the standing method into practice not only on horses but also on calves. I have been fortunate in not encountering a death or an accident from the standing method, even when adopted in a loose box or a stall. I find it is better to let horses in the open field wander until they fall, when they are immediately ready for an operation. I have tried this method on horses suffering from colic and found that if they were suffering from a fatal lesion the pain returned almost as soon as the anæsthetic passed off, whereas in simple colic the pain had generally disappeared.

This standing method is not by any means a new one, because the veterinary periodicals dating back to the time when ether and chloroform were first introduced into human practice refer to it from time to time. As to anæsthetic apparatuses, which were as manifold 60 or 70 years ago as now, experience has taught me, as it has Mr. Sheather and numerous other practitioners, that the simpler and cheaper they are the more trustworthy they seem. No apparatus yet devised will do away with the personal element behind an anæsthetic, and these remarks apply not only to horses, but also to men and other animals.

I find on reading old papers and works on anaesthesia in man or animals that we have not advanced one iota in the principles and practice of anaesthesia and in the structure or design of apparatus since the dawn of the general anaesthesia era.

When an anaesthetic is administered to a horse in the standing position it will enable a practitioner to dispense with the services of awkward assistants, to save himself much energy, prevent hardening of the hands, and avoid using bad language. It is a method especially recommendable to the country practitioner. I believe Mr. Richard Roberts has used it continuously for over thirty years without once meeting with an accident. Veterinary Colleges should take this subject for the benefit of future practitioners, who will have to be humane more generally in surgical operations than the passing and perhaps present schools. Examiners in veterinary surgery could do a great deal in this direction.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### PHALANGEAL TUBERCULOSIS IN CATTLE.

Veterinary literature as yet contains few cases of tuberculosis with localisation in the phalanges. Schlegel, however, has reported one case of arthritis and coronary synovitis of tubercular nature in a cow. Wyssmann now records (*Schweizer Archiv.*) two cases seen by himself.

The first was in an eighteen-month-old bovine (sex not stated) in good condition, which suddenly became lame on the right hind limb without any known cause. Examination revealed the existence of a phlegmonous swelling, dark red and very tender, in the region of the pastern. The tenderness was especially marked at the heel and at the coronet of the external claw. The foot scarcely bore upon the ground. The general condition appeared normal. Wyssmann regarded the condition as a coronary sprain, and prescribed moist astringent dressings.

Despite treatment, the situation was little altered at the end of four weeks; but the general condition began to be unsatisfactory, and an atrophy of the superior muscles appeared. Wyssmann now lost of the animal, but re-encountered it at the end of four months in the slaughter-house during meat inspection. The carcass was very emaciated; and Wyssmann adds some details of the post-mortem examination.

Besides some tuberculous centres in the lungs, many of the intermuscular lymphatic glands bore tubercular lesions. The second phalanx of the right hind limb showed several softened centres resembling "caverns," containing very consistent yellowish pus.

The inferior articular surface of the second phalanx and the articular surface of the third phalanx showed some losses of substance. The tuberculous nature of the lesions appeared so certain that Wyssmann did not resort to microscopical examination at all.

The second case was a four-year-old cow, which suddenly became lame a fortnight after parturition. The owner diagnosed the condition as furuncle, because the coronet of the external left hind claw was engorged and very tender. When examined by Wyssmann, the animal had become very emaciated, and bore little weight upon the affected claw. The rectal temperature was normal, but the pulse and respiration were slightly accelerated. The vesicular murmur was abnormally harsh in both lungs, and from time to time a spontaneous cough was heard.

Wyssmann diagnosed a primary tuberculosis of the lungs and secondary tuberculosis of the phalanges. The ophthalmic reaction gave a distinctly positive result.

The post-mortem examination revealed a great number of caseous tuberculous centres in the lungs.

The foot was examined at the Anatomico-pathological Institute at Berne. The principal lesions existed in the second and third phalanx, and in the articulation between them. The centre of the third phalanx was softened and contained pus; and a good half of its articular surface was destroyed. A depression of 1.5th inch was noticed upon the inferior articular of the second phalanx, while the external aspect of that bone showed numerous osteophytes. Microscopical examination revealed the presence of tubercle bacilli everywhere.

Wyssmann draws attention to the fact that both cases occurred in fairly young animals, and that the erratic tuberculous localisation appeared in an acute form. Despite all treatment, the lameness persisted; and the general condition constantly grew worse. Muscular atrophy set in very quickly. The acute symptoms slowly amended with time; and a hard swelling, not having the least tendency to abscess formation, was seen to appear. Wyssmann thinks that this clinical picture is so clear that a practitioner should find little difficulty in making a diagnosis.—*Annales de Méd. Vét.*)

##### SARCOPTIC MANGE—SPONTANEOUS HEALING IN THE PIG, AND THE TRANSMISSIBILITY OF THE DISEASE FROM PIG TO DOG.

Liebert (*Deutsche Tierärztl. Wochenschr.*) reports that a pig showing rachitic symptoms was assigned to the clinique of the Hanover School for experimental purposes. The animal also showed spotted reddening of the skin in the region of the flanks, on the sides of the thorax, and on the abdomen. Microscopical examination revealed the presence of *Sarcoptes squamiferous* in great numbers, and numerous ova of acari were also found in the preparation.

The text-books say that sarcoptic mange in swine is always accompanied by violent pruritis, which allows the animals no rest night and day, and reduces them in condition. In this case the pruritis was insignificant, and only slightly increased after the pig had been kept for weeks in a heated room.

Under suitable treatment the rachitic symptoms disappeared within fourteen days; but the scabies, because it remained untreated, extended. After

about six weeks the formation of scabs and the pruritis retrogressed.

On the forty-eighth day only a single mite's egg could be found by the microscope, and on the fifty-fifth day, despite zealous search, neither mites nor ova could be discovered. The scabies had thus recovered spontaneously.

Liebert mentions that the pig, when the scabies had reached its highest point, gave the impression of one affected with chronic swine fever. A prominent symptom was a sero-mucous discharge from the corners of the eyes.

A three-year-old terrier dog was shut up with a pig soon after the latter's arrival at the clinique. The two animals quickly became accustomed to one another, and used to lie closely pressed together. After ten days the dog first showed pruritis, and on the fourteenth day lentil-sized reddening had appeared on the inner surfaces of the elbow joints, but no mites could be found. A few days later, the dog scratched rather violently upon the head and the sides of the chest. The reddening gradually subsided, and from the fortieth day onwards the pruritis had also disappeared. Liebert concludes from this observation that scabies in the pig is not easily transmissible to the dog.—(*Berliner Tier. Woch.*)

W. R. C.

#### ROYAL COUNTIES' VETERINARY MEDICAL ASSOCIATION.

A general meeting was held on the afternoon of Friday, November 29th, at 10, Red Lion Square, London. The President (Mr. Stewart Stockman) was in the chair, and others attending were Messrs. R. C. Tennant, S. H. Slocock, David Wyllie, Geo. E. King, G. P. Male (Hon. Sec. and Treasurer), Thos. W. Lepper, J. C. Coleman, S. Villar, John Varney, J. Willett, Geo. Upton, and Percy J. Simpson (members), and Capt. Graham Rees-Mogg, Sydney L. Slocock, and Ivan R. R. Coleman (visitors).

#### CORRESPONDENCE.

The minutes of the previous meeting were approved.

The Hon. Sec. said that members would recall that at the Abingdon meeting they elected Sir John M'Fadyean as Honorary Associate of the Society. He wrote Sir John conveying the intimation; and he now read a reply, in which Sir John said it had been his desire to be elected as an ordinary member of the Association, and added that he and Lady M'Fadyean had much enjoyed their visit to Abingdon. Mr. Male also announced apologies for inability to attend the present meeting from Messrs. E. J. Mellett, J. Hatch, J. H. Parker, J. Alex. Todd, R. Verney, and Capt. O'Rorke.

Capt. GRAHAM REES-MOGG, of the 1st Life Guards, Windsor, was nominated by the Hon. Sec. for election as a member at the next meeting, and Mr. Tennant seconded.

It was resolved, on the proposition of Mr. King, seconded by Mr. Wyllie, that the next—the annual—meeting of the Association be held at Reading, as usual.

#### ELECTION OF OFFICERS.

Mr. SLOCOCK moved the re-election of the retiring President. He was sure that Mr. Stockman would accept it as a compliment from the Association if they asked him to become their President for the ensuing year, and that the Society would derive great help from his presidency. (Hear, hear).

Mr. WYLLIE seconded the proposal with very great pleasure. Mr. Stockman was so well known to all the profession that he would be invaluable to them in that position. (Hear, hear).

The PRESIDENT said that before the matter went any further he must tell them that he was in a very great difficulty about it. He considered it a very great honour to be asked to preside over them again; and it would give him the greatest pleasure to do so. But—whether for the good or ill of the profession—he personally had been saddled with a good deal of the profession's business inside and outside the Board of Agriculture. He accepted it, though not for personal reasons, but from a sense of duty and great responsibility. At that moment he sat on about eight government committees, some of which regularly met for two or three days at a time; and that day he had received an intimation to join another committee, intimately connected with the welfare of the profession. Altogether he felt he would not be justified in again accepting the presidency of this Association, as he would not be able to attend regularly. Another reason was that he was the honorary secretary of the International Congress, and his duties in that direction took up an enormous lot of time. Lately he had to be nearly three weeks abroad, much of that time being connected with the Congress work; and on his return he had to make up the arrears of his own work. Therefore, although he would very much like to accept the honour; he felt it would not be right to do so. However, life was long; and he might have another opportunity. (Applause). He would, himself, like to propose Mr. Wyllie as their President for the ensuing year. (Applause).

Mr. SLOCOCK seconded this with very great pleasure. Mr. Wyllie was a man whom they all knew, and all wished to see in the position of President, as he had the confidence of every member. (Hear, hear). He felt that after the weighty words Mr. Stockman had spoken, they could not do otherwise than accept his request that his occupancy of the chair should be put off for another two or three years; and he hoped they would keep him to his bargain to again become their President, when he was less busy. (Applause).

The resolution was carried with acclamation.

Mr. WYLLIE said he could not deny that it gave him great pleasure to accept that office, although he would have been very much more pleased had Mr. Stockman been able to see his way to continue as their President. Although he felt that he had as many disqualifications as Mr. Stockman had qualifications for the position, he hoped, with the assistance of their good friend the secretary, to do his best to uphold the prestige and usefulness of the Association and the honour of the chair. (Applause).

*Vice-Presidents* Messrs. J. C. Coleman, J. Willett, S. Stockman, and W. A. Hancock were unanimously elected.

*Hon. Auditor.*—Mr. King proposed the re-election of Mr. A. L. Butters.

The Hon. Sec., in seconding the motion, said Mr. Butters had for many years done his work very carefully and thoroughly.

The resolution was carried unanimously.

*Hon. Sec. and Treasurer.*—The PRESIDENT moved that Mr. G. P. Male be re-appointed, with the best thanks of the Association for his services in the past.

Mr. J. C. COLEMAN seconded, and it was unanimously agreed to.

Mr. MALE said he thanked the members very much for their renewed expression of confidence in him.

#### TWISTS OF THE INTESTINES.

The meeting then resumed the adjourned discussion on the paper read by Mr. J. Willett at the Alpton

At this time the base veterinary hospital at Maritzburg contained 300 patients, mostly belonging to the irregular forces. There was a large number of sore backs, principally on the withers and around the rear arch of the saddle; foot injuries were also frequent, and biliary fever among imported animals. At Ladysmith there were two sections of No. 6 Field Veterinary Hospital, one of these being stationed at Elandsplaagte, the other at Modder Spruit.

These hospitals were, a little later, both under the professional care of civil veterinary surgeons, and so remained for months. This unfortunate policy, initiated by the P.V.O., has already been referred to at p. 73. Natal was exceptionally fortunate in having several experienced officers of the A.V.D. with the Force, who, of course, ought to have been in charge of these hospitals if it was intended to make them a success. We did not at that time appear to realise the difficulties the civil veterinary surgeons were labouring under, and as a consequence their limitations. On 13th April a remount officer was posted to each hospital for the purpose of classifying horses, but considering the electric tension which existed at this time as the result of remount interference, this step was ill advised, and a little later was rectified by their withdrawal.

Biliary fever among imported horses was now very common in April, and resulted in extreme debility and sometimes in death. Horse sickness also was persistent, especially towards the end of April. Seventy fatal cases occurred between 21st April and 4th May.

Pleuro-pneumonia among the transport oxen was, however, the chief cause of anxiety. There was always a difficulty in getting early reports of ailing animals, with the result that they infected their fellows. The carelessness of the transport conductors in this matter was probably accounted for by the fact that in Natal, unlike Cape Colony, compensation for pleuro-pneumonia was given.

An isolation hospital for suspected oxen was established at Ladysmith, and inoculation was energetically carried out, with the result that the disease was kept under control. There were 17,000 oxen in the Natal Army, and of these 5400 were inoculated. Eighteen animals died as the result, and 22 subsequently from the disease, but the losses were small compared with the value of the immunity conferred on the survivors. It must not, however, be imagined that no more cases of the disease occurred. As oxen died they had to be replaced, so that there was a constant influx of fresh animals, and in consequence frequent sporadic cases of the disease.

It was now the beginning of May, and a general advance over a line of 250 miles in extent had been projected by Lord Roberts. As part of this scheme the Army of Natal had to drive the enemy out of the Colony. The Natal Army consisted of three Infantry Divisions and three brigades of mounted troops, two of them being Cavalry Brigades of the

regular forces, in all 45,000 men. This force possessed the following number of animals, which, speaking generally, were in good condition:

Horses	11,500
Mules	7,500
Oxen	17,000

Barring the road of the Army to the North were the Biggarsberg Mountains, which come off from the Drakensberg and are thrown across Natal. After running 30 miles they terminate abruptly at Helpmakaar. The Biggarsberg were in the hands of the Republicans, and soon became a stupendous earthwork, to which they returned as soon as their panic at the relief of Ladysmith had subsided. Their hope was that Buller would make a frontal attack. As a matter of fact his scheme was to outflank them by getting around them at Helpmakaar, and the advance began on 11th May.

Major Rutherford, Senior Veterinary Officer of the Natal Army, was not, as in the arrangements on the Cape side, left behind; he joined the staff of General Buller on 10th May. He had obtained the permission of the authorities to render both sections of No. 6 Field Veterinary Hospital mobile, and it was arranged that a section should be attached to each Infantry Division. For the first time in the history of the British Army it was accompanied in the Field by some organised machinery for the treatment of the sick and injured, and it is quite incomprehensible how these could have been expected to be a complete success unless officers experienced in Army matters were placed in charge of them. The two best veterinary officers of the Natal Army should have been with the two hospitals; their capacity for organisation and skilled technical knowledge of military veterinary requirements would have ensured the best results being obtained. Instead of this both hospitals were in charge of civil veterinary surgeons, who obviously could not fulfil the above essential conditions. It was the opportunity of a lifetime, of which the policy referred to at p. 73 prevented full advantage being taken. The fact is that, among other causes, we had not realised the long time occupied in our own training, and that service knowledge and experience are not acquired in a day or two.

On 11th May operations began by the flank march on Helpmakaar of one division (the 2nd) with a brigade of irregular M.I. The position was captured after some resistance on the 13th, and the whole length of the Biggarsberg was won at a single stroke. Unfortunately the two Cavalry Brigades had been left behind, but the irregular M.I. pressed the enemy for 25 miles over desperate country, being only held back by veldt fires. Had the cavalry been present it is unlikely that the enormous transport train with the Burghers could have escaped capture. An Infantry Division (the 5th) facing the centre of the Biggarsberg, now advanced by the line of rail, while the division which had gone round by Helpmakaar pushed on to Dundee.

It was a long steep pull over the mountains, and Dundee was reached on 15th May.\* Here a day's rest was given, for the artillery and transport animals had had very hard work. The feeding at this time was a full grain ration, but no hay. As the veldt had been fired when the enemy retreated there was no grazing for the animals, nor would time have admitted, for everything depended upon rapidity and dash.

The 2nd Division left Dundee on the 17th, and after a sixteen mile march over a fair road and no steep hills reached Dannhauser. On 18th there was a long trying march of 24 miles into Newcastle, and several artillery horses died from exhaustion. On 19th Ingogo was reached, the road was very hilly and trying for the transport, which in consequence was greatly exhausted. At Ingogo the force rested several days before the formidable Laing's Nek position. This rest was of great value to the animals, as they were able to have some grazing, and so repair the condition they had lost on a wholly grain diet.

It was considered unnecessary to drag a mobile hospital over the Biggarsberg in the flank march, so both sections were, for the time being, attached to the 5th Division, which, as above stated, was advancing by the railway. On its arrival at Newcastle on 20th May, B. section (No. 6) was posted there pending the formation of a station hospital, and later on A. section was sent to Ingogo. On 20th May, two days after the occupation of Newcastle, an advanced veterinary store depôt was opened, which speaks well for the veterinary arrangements.

Though the distance from the base of operations to Newcastle was only 97 miles, yet being up and down hill it was most trying to draught animals. In addition, the Mounted (Colonial) Brigade had been covering a good deal of country at a smart pace. In consequence there was a collection of exhausted animals at Newcastle to provide for, apart from the usual sick, and General Buller directed that a farm should be engaged for their reception. This was done, and a liberal staff of Europeans and natives provided for their care and attention. Although so many sick existed, none of them belonged to the regular cavalry, of which hitherto no use had been made, two brigades were awaiting orders at Ladysmith, and on 23rd May these and the remaining infantry division were ordered to the front.

On 5th June the opening of the line to Ingogo enabled a hay ration to be issued to the troops. On the 6th the force, avoiding Laing's Nek by going round it, advanced on *Botha's Pass*, 14 miles, for the acquisition of which an action was fought on 8th June. The 9th was a very severe day on animals; there was a climb of 1200 feet up the pass which pierces the Drakensberg, over a rough and boulder strewn road, before Free State territory was reached. Twelve horses to a gun and eighteen

to a waggon were necessary, the oxen worked in double spans but were seriously exhausted by heavy work, shortage of food, and the intense cold, for it was now mid-winter at 6300 feet altitude. In consequence there were many deaths.

B. section (No. 6) Veterinary Hospital accompanied the body of troops which forced Botha's Pass. It had recently been strengthened in native personnel, and did useful work in collecting and receiving cases. Several of the latter were sent back to Newcastle.

On 10th the troops advanced on Allman's Nek, the going was excellent; it was the first time the Natal Army had experienced the rolling veldt of the Free State. This was an immense help to the animals after their previous day's severe exertions. On the 11th was fought the action of *Allman's Nek*, and on the 12th the force arrived at Volksrust in the Transvaal, 180 miles from Ladysmith. The enemy had been driven out of Natal. The following veterinary officers were present during the foregoing operations: Major Rutherford, S.V.O., Captain Larnder, Lieutenants C. B. M. Harris, F. W. Wilson, Tatam, Bartlett, Cochrane, C. V. S. Hylton-Jolliffe, Matthews, Malone, Evershed and Cockburn. There were officers with the local forces, but their names are unfortunately unknown.

The mobile veterinary hospital was at once opened for the reception of cases. This was particularly valuable on the 15th, when a force was directed to march on Wakkerstroom and evacuate all its sick into the Field Veterinary Hospital. Instructions were sent down the line for all spare and surplus veterinary equipment to be at once sent to Volksrust. On the 18th June an advanced veterinary hospital had been formed at Newcastle with a liberal staff, and contained 200 cases, of which 30 were mange. This is the earliest record of mange on a large scale in the force operating in Natal. The formation of an advanced hospital at Newcastle liberated the mobile section A. of No. 6 for subsequent operations, and later on, when Standerton was occupied, it was sent there. By 1st July there were 430 sick in the Newcastle Hospital principally cases of mange, quittor, sore back, rope gall, and lameness.

While the troops were at Volksrust arrangements were being made for the advance on Standerton, and with the opening of the Natal railway on 18th June supplies and remounts arrived. A hay ration was now issued; hitherto the troops had been dependant on scanty grazing.

On 20th June a force marched on Standerton, which was occupied on 23rd June, and on 4th July the Natal Force within sight of Heidelberg met the troops which had accompanied Lord Roberts *via* Cape Colony and the Free State. "In this manner the two armies which had started their respective campaigns from sea bases more than a thousand miles apart, joined hands after ten months of battles and marches, connecting at this obscure spot, the last link of over 1500 miles of railway. . . ."

\* The distance covered from where the force started was 60 miles.

† "Official History," Vol. iii., p. 285.

The Natal-Johannesburg railway was now to become the main road for supplies owing to its relatively short distance to the coast, and the Army was no longer to depend entirely on the Cape and Orange Free State Railways. In particular, the short journey to the centre of hostilities would be of immense advantage in the remount question, for horses instead of being days, perhaps a week, in the train, could be in the heart of the Transvaal in 48 hours. On the other hand, the sharp curves on the Natal line, and the steep gradients, told heavily on horses. They were thrown off their feet at curves, telescoped at gradients, and owing to the peculiar construction of the Natal trucks were injured by projections, rails, and such like, so that practically no train arrived from the coast without injury to horses. Over and over again were representations made regarding the fitting of the trucks, but after all the road was to blame, and that was unavoidable. The trucks were iron and so did not lend themselves to alteration, they were long and narrow, too narrow for Artillery horses, and we made the mistake of tying up the horses' heads instead of leaving them free. The iron floors gave no grip, sand and cinders soon shifted on such a surface over a hilly road, and in ascending a stiff "bank" the tendency of the horses was to gravitate to the lower end. This is what we have described as telescoping, the pressure on the lower horses was intense and had been known to be capable of forcing an animal over the end of the low truck and let it fall on the single buffer behind. The number of train injuries was deplorable, and one of the most constant sources of anxiety to the Veterinary and Remount Services.

When the Natal-Johannesburg line was opened the question of increasing the accommodation for remounts at Durban at once became an important matter. The existing accommodation sufficed for the relatively small number of horse-ships which originally proceeded to Durban, but was insufficient when nearly all ships directed to South Africa were in future to discharge at that port. In consequence a new landing depôt for 1000 horses was erected

#### ORANGE FREE STATE.

OPERATIONS, JUNE, 1900.

We have now to describe operations of considerable complexity which can only be made clear by reviewing the position in the Free State from the time Lord Roberts crossed the Vaal on 25th May. It was generally agreed that Free State troubles were now at an end, the war had passed from this country into that of their neighbour and ally, and the matter was no longer any concern of theirs. The advance from Kroonstad had been relatively bloodless. Rundle had further stretched to the left (p. 69) to near Winburg, which liberated Colville to advance north. Methuen had been sent from Bothaville to garrison Kroonstad; burghers were surrendering and everything was very quiet. The

general optimism was evidently deserved. Nevertheless, as far back as the 17th March a Council of War held by the Republican Forces at Kroonstad had decided on the policy to be adopted as regards the Free State. The burghers of the latter were not to be required to serve in the defence of the Transvaal, but were to be organised into flying columns and operate against the enemy's line of communication. On the 25th May this principle was agreed to as the British were crossing the Vaal, and on 27th General De Wet received from Commandant General Botha the following communication:—"What I desire from your Honor, now that the great force of the enemy is here (Transvaal), is to get behind him and break and interrupt his communications. We have delayed too long in destroying the railway behind him." When De Wet received this letter he was a few miles south of Heilbron, having returned there after the place was evacuated by I. Hamilton on 23rd (p. 76).

The extensive horse wearing operations about to be recorded all centre around this policy, activated by the super-human energy of one man, General Christian De Wet. Before he had time to begin them, unforeseen circumstances had contributed materially to a series of disasters affecting the troops in this part of the Free State. The first of these will now be narrated. On 24th May Rundle advanced on Senekal, and on 25th a party of the Middlesex Yeomanry galloped into the town, losing touch of the main body, and were either shot down or captured before the arrival of the force behind. Senekal was then occupied.

A day or two previously Colville left Winburg for Heilbron, where he was ordered to arrive on 29th May, marching *via* Ventersburg and Lindley. He had only a handful of mounted troops with the column, but by going to Ventersburg he was to pick up his cavalry in the shape of the 13th Battalion of I.Y. When he reached Ventersburg on 23rd no I.Y. appeared, so Colville marched without them for Lindley, which town he occupied after a little resistance on 26th. Next day he left Lindley for Heilbron, the town as usual being at once re-occupied by the enemy. It will be observed that the I.Y. had not yet joined him. All the 27th he was followed up and sniped by the enemy, and on the following morning received a message from the 13th I.Y. at Lindley saying they had found only the enemy in Lindley, and were surrounded and wanted help. Besides appealing to Colville for help, messengers were sent to Rundle at Senekal, and to Kroonstad. This outline of the disaster which followed is necessary in order to understand the position, and the wear and tear of animal life which followed the vain attempts made to relieve this gallant body, which within a few weeks of its creation found itself within the grip of the enemy, in a position demanding something more than an amateur knowledge of soldiering.

It appears the 13th I.Y., 500 strong, marched on 26th May from Kroonstad to Lindley, 44 miles in 25 hours; the enemy was waiting for them, for their exis-



tance on the road was well known. For five days they held out against superior forces, and finally surrendered on 31st May, losing all their horses and transport, to say nothing of equipment and stores. Among the prisoners of war was the veterinary officer, Lieut. Fenner.\* While they were fighting for existence the messages above related were sent off. Colville was nearest to them, 18 miles, but felt that his orders to be in Heilbron by the 29th were imperative, so he continued his march on 28th, being so roughly handled, at the point where Hamilton a week earlier had been harassed, that he only made four miles that day. To reach Heilbron on 29th he believed was part of the laid-down programme, besides he required supplies and ammunition. He, however, sent a message to the Chief of the Staff relating his difficulties, and at this point we must leave him.

Rundle at Senekal, 40 miles away, responded to the 13th I.Y. call for help by demonstrating towards Bethlehem. His telegraphic information to Brabant was tapped by the enemy, who prepared accordingly. They met at *Biddulphsberg* and Rundle was repulsed with heavy casualties. During the action a disastrous veldt fire sprang up, and some of the wounded were burned where they lay.†

The third call for relief sent out from Lindley was to Kroonstad. Methuen had arrived there on 29th May. On the 30th he was made acquainted with Colville's difficulties in entering Heilbron and left Kroonstad to help him; he had barely started before it was known that Colville needed no help, while the Yeomanry at Lindley were in a bad way. To Lindley accordingly he went under all pressure; but was too late to save the surrender, though he inflicted punishment on the enemy, but from the exhausted state of his horses he was unable to pursue.

The chapter of accidents connected with the 13th I.Y. is not yet ended. When Colville reached Heilbron he found that Hamilton had cleared the place out of supplies, so he had to telegraph for supplies to be sent him. None of the operations just described were under the personal control of General De Wet. He was waiting for ammunition at Frankfort, and this being received he moved towards Heilbron. Here he learned that 60 waggons conveying supplies for Colville at Heilbron were on their way to him from the line of rail under a small escort and no guns. He snapped up 200 men, the stores, and all the animals on 3rd June. Though a relieving force came within four miles of the convoy before it surrendered, no attempt, for some unexplained reason, was made to rescue it.

Such a chapter of accidents as that related above could not have been more successful had they been intentionally devised. They gave a fillip to the

operations now about to be undertaken against the line of rail.

The scene of the first operations against the railway were laid in the vicinity of the Rhenoster River, halfway between Kroonstad and the Vaal. It will be remembered (p. 76) that the river, though not broad, has very steep sides, and consequently the bridge had to be replaced by a temporary structure before any stores could be sent north. The Rhenoster bridge was blown up shortly before the invading Army crossed the river on 23rd May. It was not yet repaired, but pending its completion, which was now near at hand, vast supplies of stores had been collected in the vicinity of the bridge, all left in their trucks ready to push away north the moment the bridge should open. All the warm clothing for the Army operating in the Transvaal lay there, ammunition, stores of every kind and description, and thousands of sacks of mails all awaiting transmission. The Free State being very quiet and resistance at an end, there seemed no reason why all this valuable property should not lie out in trucks on the veldt, in charge of the handful of men accompanying them, but the capture of the convoy by De Wet on 3rd June rather opened the eyes of the military authorities to the risk they were running, and a battalion of raw Militia was sent forward for its protection. They arrived on the night of the 6th; at daybreak on the 7th June three important points on the line were attacked by three columns under the direction of De Wet, and all three succumbed. It is well to know what he effected at Rhenoster River and its vicinity on this date. He killed 38 officers and men, wounded 109, and took nearly 500 prisoners of the Militia regiment. He destroyed ten miles of rail, burned the new bridge which was just completed, and all the loaded trucks, so that nothing was left of them but their ironwork. He burned the winter clothing, destroyed all the ammunition for the siege artillery, destroyed all the rifle ammunition he did not require, and burned the mails. Weeks later, for a considerable distance around the scene of the disaster were thousands of charred letters and tons of burned clothing and burst shells.

Genuine alarm and grave anxiety was now, as usual, aroused when the damage was done. Kroonstad, where enormous supplies of stores existed, was at once properly garrisoned, Winburg was strengthened, Lord Kitchener was sent south with a Force, and Lord Methuen being the nearest to hand was directed to bring the offender to book. Bloemfontein even was not considered safe, and from among the details and convalescents in the town a temporary regiment of infantry, and another of cavalry was hurriedly created.

Lord Methuen at this critical moment was, as we have seen, at Lindley; leaving a Brigade for its care he marched on the 5th to Heilbron with supplies for Colville, had a fight on the road, and reached it on 7th. On the 9th he left for the scene of the disaster on the railway, and was there on the 10th when he met Lord Kitchener, who had been sent

\* He died at Vrede the following month.

† The veterinary officers present at Biddulphsberg were Lieuts. A. H. Lane and E. Brown, and C.V.S. Swanston. The names of the Yeomanry officers present are unknown.

‡ His mounted troops were the 3rd, 5th, and 10th I.Y.



down by Lord Roberts to retrieve the situation. General De Wet, with his prisoners, was still in the neighbourhood of his recent exploits. An attempt was now made to attack him, but he moved west, and then going N.E. got once more on to the line, attacked two construction trains on the 14th, burned them and their valuable plant, took 350 prisoners, of which 300 were natives, nearly captured Lord Kitchener, and then retired to the neighbourhood of his own farm, sending the prisoners to Reitz. This completes the account of the movements of De Wet during the eventful month of June, 1900. They led to a rude awakening, the outcome of despising one's enemy, carelessness, optimism, want of proper staff organisation, \* and an inability to take war seriously.

It is not with these, however, that we are concerned, but from the account given it is easy to recognise what all these operations meant for horses and transport animals. It is impossible to say what was the loss due to the various forced marches and counter marches, the hurrying to and fro, the wear and tear, the want of rest, the scanty rations, and for the cattle want of time for grazing, and the hustling on the march. It is true the distances were not great, a forty mile circle around Lindley takes in Kroonstad, Heilbron, Senekal, and Bethlehem. These, compared with the distances yet to be traversed in the various De Wet hunts, are insignificant, but were sufficient to cause a drain on animal resources far beyond the value of the military results attained.

The most important consideration at this time was the capture of General De Wet, and the machinery for this object and its results must now be considered.

BETHLEHEM, WITTEBERGEN, SURRENDER OF PRINSLOO,  
JULY, 1900.

We are now in a position to understand why the capture of De Wet became a matter of such extreme importance. He, meanwhile, had retired into the Eastern Free State, in the neighbourhood of Bethlehem, for it was at Bethlehem the late Government of the Free State was established. Every effort was now to be made to capture the commandos, and with them, if possible, the persons of De Wet and Steyn. Operations were about to occur on an extensive scale, and relatively far removed from the line of rail, which means a larger transport for the conveyance of supplies.

The scheme was that the 8th Division should continue to block the waist of the Free State. Clements from Senekal and Paget from Lindley were to join hands and advance on Bethlehem. Methuen was to hold Heilbron, setting free Macdonald, who had replaced Colville, and I. Hamilton was to come from Heidelberg (p. 82) and press the enemy from the north. Hamilton was replaced by Hunter in consequence of an accident,

\* Defective staff organisation sent the Yeomanry to Lindley, led to their obliteration, and to all the subsequent losses in the three Divisions of the Army.

and the operations now to be referred to are known under his name.

Hunter, Macdonald, Clements, Paget and Rundle had between them about 10,000 mounted troops. Hunter left Heidelberg on 27th June, crossed the Vaal, and on 3rd July was joined by Macdonald at Frankfort. He reached Reitz on 7th July. Paget, who was left behind at Lindley by Methuen (p. 88), had ever since been more or less invested. On 2nd July he was joined by Clements from Senekal, and the two forces advanced on Bethlehem. On the 3rd Paget was seriously attacked at *Bakenkop* and guns were lost and recovered; the casualties were serious as the enemy crept up and shot down the horses and drivers. On 6th their combined forces were opposite *Bethlehem*, and fighting occurred both on that and the following day. De Wet, who was in command, finally evacuated the town and retreated south with his large force of 7000, into the inaccessible mountain ranges forming the north ridge of the basin of the Brandwater River. His retreat to this position was influenced by the fact that Hunter was advancing from Reitz. On 9th Hunter reached Bethlehem (from Heidelberg 110 miles.)

Rundle's position ran from Ficksburg to Senekal. Throughout June he had been endeavouring to bring off a decisive action with an elusive enemy in a most difficult country. Only the 8th Division can appraise the weary monotony of its work in endeavouring to maintain the 40 mile cordon committed to its care, and the action at Biddulphsberg, brought about by the plight of the 13th I.Y. (p. 88) did not help matters. At this time also his horses were on half rations, and the cold at night was intense. In the operations against Bethlehem, Rundle advanced east and occupied all the exits of the Wittebergen mountains as far north as Witnek. This range forms the western boundary of the Brandwater Basin.

It seems incomprehensible that the Republican Force should have voluntarily placed themselves in the prison of the Brandwater Basin. It would seem that they depended upon the wild difficult mountain ranges, bold and magnificent in character, which enclose it on two sides, to afford immunity against attack; yet there was no escape, for the third side of the basin is formed by Basutoland.

The only two available sides together equal 75 miles in length, and in these there are but four openings or Neks, many miles apart, which are possible for waggons. They are Commando Nek in the S.W., Slabberts Nek in N.W., Retief's and Naauwpoort Nek in the North, and Golden Gate to the E. Witnek and Helspoort to the W. are passes, and are mere bridle paths. It is obvious that if the Neks and passes were held, escape was impossible. That appeared to have at last dawned on the enemy, who, after a week, determined to break out of the net. Circumstances favoured one force, that of De Wet, who, finding Slabberts Nek not held, walked out with 2600 men and 460 waggons on the evening of 15th July, and though this

force stretched out for 5000 yards and passed within a mile of the nearest British Camp, it was not detected. \* With De Wet was President Steyn. The last chance of bringing the war to a sudden close was lost. The circumstances which led to the Nek not being held form no part of this history. The force nearest to Slabberts Nek had not even a picket on it. It was not until the morning of the 16th that De Wet's escape was known. The other commandos had not moved out of the basin for reasons which need not concern us, and every effort was now made to seal them up. This was shortly accomplished, after a good deal of fighting around the neks and passes, carried out under disadvantageous circumstances. It was mid-winter and bitterly cold on the snow-clad mountains. A hurricane of wind, accompanied by rain, occurred on 22nd, horses stampeded, and camps became quagmires, nevertheless by the 26th all but one exit was closed, and that a bad one, and on 29th Prinsloo surrendered with 4300 men, 5000 ponies, cattle, sheep, ammunition and guns. † It is convenient to close the account of Prinsloo's surrender before taking up the narrative of the first chase after De Wet.

Major Rimington was directed to sort the surrendered ponies, and was assisted by Lieut. A. H. Lane, S.V.O., of the 8th Division. With the willing aid of the prisoners of war the best ponies were selected. All were looking rough and poor, but they soon recovered, and made excellent remounts for M.I. and others who knew the value of this hardy animal, and were not above riding a pony. No contagious diseases were detected among this large collection of animals. Mange was apparently absent, and sore backs were not common. Among the cattle, however, pleuro-pneumonia existed.

The following Veterinary Officers were present at the Wittebergen operations: Captains Richardson, Drage and Melhuish, Lieuts. Lane and E. Brown, and C.V.S. Gamble, Head and Orton.

#### THE FIRST CHASE AFTER DE WET.

JULY-AUGUST, 1900.

The chase of De Wet, which occupied 35 days, is full of dramatic incidents and unrehearsed effects. Of its management as a military operation we are not concerned, but its veterinary interest is considerable. If we are to understand why the wear and tear of horses during the war was so heavy we must follow in outline this exhausting operation, involving the retreat and escape of this Commander after a chase of 200 miles as the crow

\* "Times History," Vol. iv., p. 317.

† This did not include the whole of the enemy's forces. Some 1500 escaped, and one party which used the Golden Gate even took their artillery. The path was impossible for wheels, so the carriages were left behind, and the guns bound round with logs were allowed to slide down the rocks. This fact gives some idea of the wild state of the country. Napoleon employed similar transport for his artillery when crossing the Alps.

flies. Bearing in mind the immense convoy accompanying De Wet, the average pace of which is 2½ miles an hour, one is struck by the ease with which he continued on his road from Slabberts Nek in the eastern part of the Free State, to Rustenburg in the Transvaal at the western extremity of the Magaliesburg mountains. It was only towards the end that De Wet's animals and men began to give out, as the pressure from all sides increased. It was then observed that the oxen trotted as well as the mules, and, it is said, stood the strain better. ‡ One is compelled to recognise that the consummate skill of the Burghers in animal management is solely responsible for their escape from positions which seemed impossible. That their "intelligence" service was excellent, and their topographical knowledge of the first order, is beside the question. It was their animals which conveyed the commandos from Slabberts Nek to Rustenburg, for without a horse the Burgher is helpless.

We have seen (p. 89) that on the night of 15th July De Wet broke out of the ring Hunter was forging, and struck north-west. On the 16th his flight was discovered through the 2nd Cavalry Brigade, then at Bethlehem, leaving the latter place on the 15th to reconnoitre along the road to Senekal.

He was at once attacked, and fought a rearguard action, sending his three miles of transport on to Lindley. The attack was unsuccessful, and that night De Wet rejoined his convoy. On 17th Broadwood, commanding the 2nd Cavalry Brigade 700 strong, was joined by 900 M.I., two Batteries of Horse Artillery, and a regiment of Infantry, the whole again started in pursuit, but time was lost picking up the trail.

Owing to the difficulty of supplies at Bethlehem, Hunter, on July 10th, had sent the 3rd Cavalry Brigade (about 400 in strength) and 400 M.I., together with a Battery of Horse Artillery, to Heilbron, which place they reached on 15th July. There they received orders to go to Kroonstad, and on 17th, in consequence of De Wet's escape, were diverted to Lindley in order to co-operate with Broadwood against De Wet. The 3rd Brigade, now made up to 700 strong, was therefore marching across De Wet's front. Broadwood knew nothing of it being in the vicinity, † but De Wet, who had a splendid intelligence system, knew of its existence, and on the 19th, having divided his forces, he dealt with these two bodies at 15 miles apart and prevented them from meeting. Finally he shook them both off, though the patrols never entirely lost touch. Here were two Cavalry Brigades following the one enemy and ignorant of each other's existence, nor did they meet until 23rd! At night on 21st De Wet struck the line of rail at Honing Spruit, near the scene of his recent exploits. It so happened that as he crossed, a train containing ammunition steamed across his path:

‡ "Official History," Vol. III.

† "Times History," Vol. IV., p. 417.

this he snapped up, together with the escort of 100 men, a piece of audacity in the presence of two Cavalry Brigades at his heels, which speaks volumes of what he thought of their mobility.

From Slabberts Nek to where De Wet crossed the railway is 80 miles, and he had been seven days in doing this distance, due to the obstruction to which he was exposed, and the length of his convoy. It would have been impossible to have intentionally arranged a better scheme for smashing him than that which came about by accident, *i.e.*, sandwiching him between two forces for several days, but it led to nothing. It was not until the 23rd, while moving up and down the line, that the two Cavalry Brigades met and ascertained that each had been in the same hunt.

Once across the line De Wet headed for Vredefort, and there in a strong position made a stand against which the two Cavalry Brigades could do little. The distance from Honing Spruit to Vredefort is 30 miles, and this was accomplished in two days. He remained in a strong position between Vredefort and Parys on the Vaal from 23rd July to 6th August, during which time he was being surrounded on all sides by troops brought from wherever they could be spared\*. It seemed impossible that with the numbers opposed to him escape could occur. It is worth looking at the composition of the enveloping force. On the South bank of the Vaal there were 11,000 troops:

6 Cavalry Regiments	Mounted Infantry (1000)
2 R.H.A. Batteries	Colonial Division "
2 R.F.A. "	5½ Battalions of Infantry.

On the North bank, watching twelve drifts under Methuen, were:

2 Regiments Imperial Yeomanry
6 Guns
2 Battalions of Infantry.

And elsewhere, in the Western Transvaal, were 18,000 men. The entire operations were now under Lord Kitchener, who had arrived for the purpose. It was Methuen's duty to pursue should De Wet cross the river.

On 6th August, before daybreak, De Wet crossed the Vaal at Schoeman's Drift while Methuen was guarding another crossing; his rear guard was engaged all day on the North bank and then withdrew. False information received by Methuen and tired animals decided on a halt being made by this force until early on the 9th, this gave De Wet a clear 24 hours start. On the 9th the tail of the enemy was found three miles ahead, not more than ten miles from where they had crossed the Vaal on 6th; there was a fight and check which lasted until the late afternoon. Fifteen miles were made on 10th by Methuen, but De Wet was six miles to his right and trekking rapidly in order to cross the railway leading from Krugersdorp to Potchefstroom; this he effected on the night of the 10th, at the same time blowing up a railway bridge. In the

\* During this period of inactivity he utilised a picked force to attack and worry the railway.

meantime the troops on the South bank of the Vaal had crossed, and by rapid marching had caught up Methuen on 10th. Lord Kitchener with the cavalry ahead, and the infantry doing rapid marches to the north and west of the actual course taken by the fugitives, reached the Potchefstroom railway at Wolverdine, north of where De Wet crossed, late on the 11th. He had covered 40 miles since he crossed the Vaal at Lindeque on 9th. On the 11th De Wet was 12 miles west of the railway. Early on 12th Methuen, with 600 Yeomanry, 600 Colonial Division\* and guns, leaving his infantry and heavy transport behind, started in pursuit with two days' forage for the Yeomanry and one day's for the Colonial Division; he came up with the enemy's rearguard in the afternoon. This was a good day's work; a gun captured at Stormberg was recovered, many of the enemy's waggons were taken, and the road was littered with abandoned animals and supplies. The columns did 32 miles that day, and the horses were exhausted.

On the 13th, at 3 a.m., the columns again started, the cavalry without baggage of any kind. Methuen moved west so as to envelope De Wet or drive him into the arms of 8000 British troops which were expected to be in position to receive him at the door through the Magaliesberg mountains. The punishment he had inflicted on 3rd June was still too recent to be forgotten; infantry and cavalry alike pressed forward with enthusiasm, eager, in spite of hard marching and exposure, to be connected with bringing to bay so redoubtable a foe. † Far to the west Methuen had a column to prevent extension in that direction; De Wet's animals were dropping, and the prisoners who fell into our hands told of their despair at the hopeless outlook. Nearer and nearer the columns approach, while in front are the Magaliesberg mountains, which can only be crossed at two points, both of which are supposed to be in British occupation. The game seems almost up, the convoy is within reach of capture, suddenly De Wet swings south under the mountains, his scouts have discovered that one door to the other side is open. He enters it on 14th August with President Steyn and all his force, and closes it behind him. The chase is over; this time it is not the horse that failed but the Commander. A force ought to have been in the pass awaiting De Wet. Through not understanding the urgency of the case it had not yet arrived.

At this moment news was received that the beleaguered garrison of Elands River ‡ was still holding out, and Lord Kitchener taking the two Cavalry Brigades and Mounted Infantry started off

\* The remainder of the Colonial Division had to stand fast and await remounts from Krugersdorp. Remounts to be taken on such work as this!

† Between the 12th and 14th Methuen had marched 80 miles in 60 hours. One Cavalry Brigade marched for 40 hours out of 48, another marched 115 miles in 125 hours. The magnificent infantry under Douglas covered 66 miles in 76 hours. See "Times History," Vol. IV., p. 432.

‡ Yet to be described.

for its relief, while the enemy rested, though on the opposite slope of the mountains. As a matter of fact De Wet needed recuperation as much as his pursuer; the last few days marches had been very trying, and over some of the most difficult country in South Africa. It took De Wet eight days to get from the Vaal to the Magaliesberg, 60 miles as the crow flies; he was held back by a convoy and guns. In the subsequent chases he moved without impedimenta of any kind and covered extraordinary distances. He now had three days rest on the Magaliesberg, having previously sent off President Steyn.\*

While Lord Kitchener was away relieving the hard pressed garrison at Elands River, Lord Methuen, having been joined by General I. Hamilton, determined to attack De Wet, as the general conditions were most favourable; the only other pass back through the mountains was near Pretoria and was held by Baden-Powell. Accordingly on the 16th August further operations began against De Wet, who streamed away due east, along the north side of the mountain in the direction of Pretoria. On the evening of the 17th he was opposite the opening in the mountains at Commando Nek, which would have led him south to the Free State, but it was occupied by Baden-Powell, and failing by simple audacity to induce the garrison to surrender, he passed north during the night. Two fresh columns now joined in the chase, but pursuant to arrangement De Wet divided his commando, a part was to accompany him and break back in order to get into the Free State, while the bulk of the commando was to stream north into the Bush Veldt of the Transvaal. De Wet divided his force early on 19th August, close to him at the time were two British camps, six miles apart. Accompanied by only 250 men he rode between these, making for the gap in the mountains, the surrender of which he had demanded a day or two before. Before this was reached he ran into another British column, then into a convoy, and at this point we may follow the *Official History*,† "De Wet's case was as critical as it had ever been. To retreat was impossible. His only hope was to cross the Magaliesberg at once, though all the passes were closed to him. Only a goat track led over the mountains, a path considered too steep even for cattle. But to the desperate band it was a road to safety, and leading their horses they began to clamber up the precipitous slopes. Once more fortune favoured men so deserving of it. A couloir scarring the mountain side hid them at first from sight. This failed halfway up the ascent and they became fully exposed to view, but then all eyes in the British camp were fixed on the skirmish in progress on the flats below, and none saw, nor might have trusted their eyes if they had, the exhausted men and horses scaling the

heights. In this manner did De Wet snatch his men once more from the very jaws of destruction."

We have extracted this generous recognition of the personality of this remarkable leader. How amply it confirms what Napoleon said nearly a hundred years before, that what is wanted in war is "a man," not men.

Even when this devoted band had scaled the heights of the mountains, and descended on the other side with their heads now pointed towards the Free State, they were by no means safe, for they nearly ran into the 3rd Cavalry Brigade returning from the relief of Elands River. By marching all night they crossed the Potchefstroom line, and going south were soon safely over the Vaal, at the same moment that De Wet's pursuers were looking for him in the Northern Transvaal.

When the Free Staters of De Wet went north from Pretoria, they were followed and harassed for 130 miles by columns under Paget, Baden-Powell, Hickman, I. Hamilton, Mahon, and Pilcher as far north as Warmbad, but by the end of August it was realised that the one man they were seeking for was not there. The wear and tear of horses during this anxious period was enormous; nothing was spared which was likely to bring the offender to book, and horses least of all.

We have intentionally entered into the history of this chase with some fulness in order to give a notion of the work demanded from the horses. The conditions on both sides, so far as the animals were concerned, were not entirely equal. The enemy in this chase frequently changed their horses, carried no dead weight, while every farm was a source of supplies and remounts.

#### WESTERN TRANSVAAL.

RUSTENBERG, ELANDS RIVER.

JUNE-JULY, 1900.

The importance of Hunter's work in the Western Transvaal has been indicated at p. 68. After capturing Christiana he marched to Vryburg, which was reached on 23rd May, and on 26th the railway communication north and south of Mafeking was restored. He then marched east across the Western Transvaal south of the Magaliesberg mountains, while 80 miles north of him the force under Baden-Powell from Mafeking was taking the same direction north of the mountains. Hunter's march was uneventful excepting for the wonderful marching shown by his troops, through a country so ill-watered that he could only take his force along by fractions. It required the most careful consideration to overcome the transport difficulties. He reached Lichtenburg, N.W. of, and 100 miles from, Vryburg on 3rd June, where he was joined by Mahon's column returning from the relief of Mafeking (Mafeking to Lichtenburg 50 miles), and the combined force marched to Ventersdorp, 45 miles, and then going south, Potchefstroom and Klerksdorp, 45 miles from Ventersdorp, were both occupied on 14th June.

\* The sole object of De Wet's incursion into the Transvaal was to conduct President Steyn, so that he might consult with Botha as to the future policy of the campaign.

† Vol. III., p. 363.

meeting, on April 16th, which was printed in *The Veterinary Record* of May 4th.

The PRESIDENT said Mr. Willett had very kindly agreed that the discussion should be adjourned, to allow members to see a number of specimens in the Laboratory; and, as the next meeting was at Abingdon, it was further put off. The paper had been printed and circulated.

Mr. SLOCOCK opened the debate, Mr. Willett, he said, gave them a great treat in his paper, which very concisely dealt with a very important subject. To his (Mr. Slocock's) mind those case were brought about almost entirely by the quality and quantity of food given in relation to the amount of work expected from their horses.

For instance, they knew that the racehorse and the hunter were carefully fed on the most nutritious foods, which were regularly exercised, and subjected to more work than any others, were but slightly subject to intestinal affections. He thought the proportion of cases would be found to be regulated a great deal by the quality of the forage. Taking the present year, in which there was a very big proportion of bad hay throughout the country, they had had more cases of twist during the late autumn than for several years past, especially when they considered the great reduction in the number of working horses.

He considered that the bulk of the ingesta had a great deal to do with the location of the twist. Twist of the small intestine, he took it, was mostly seen in horses that were hard fed and also over-worked. He had himself been unable with any certainty to locate a twist until the post mortem. The symptoms described by Mr. C. J. Reakes, seemed to him more indicative of rupture of the diaphragm than the intestines. His experience was that they did not get most twist in the double colon.

On the question of treatment he did not disagree with Mr. Willett, who made a very honest remark about injections of arecoline increasing muscular contraction and hastening the end. It was a justifiable course, and lessened the horse's anguish, but they were taking a risk. He had himself, in apparently hopeless cases, given arecoline, which seemed to excite a sluggish animal. The greatest trouble was that they could not diagnose whether a horse would live an hour or two or a number of days.

He was strongly of opinion that no horse, once he was affected with colic, could twist an intestine by rolling. He had seen many cases of twist in which the horse had never rolled; and in the case of a twist of the small intestine he considered that the animal found it too painful to allow him to roll.

Mr. KING observed that "twist" made up the bulk of their cases in the country, and a good many were not "all joy" to them. He agreed with Mr. Willett that the cause was mainly dietary. A great thing was to give the water before the horses were fed. Giving water when the meal was only partly digested was, to his mind, a very fruitful cause of colic. As Mr. Slocock had said, in racing and hunting stables colic and twist were very rare, and he put that down to the fact that the horses had good food, and were watered in the way he had indicated. Mr. Willett had not mentioned the colic which was caused by worms, which was very interesting, especially in the case of young horses. The irritation set up by these parasites must have a great influence in producing colic; and if the colic went on they got twist afterwards. He thought that there was a difference between the twist and the displacement of the bowel. They sometimes got a recovery after displacement of the large intestine. With regard to diagnosis of twist the older he got the more diffident he was in expressing an opinion; but from cases in which horses kept hanging about, and ultimately made a re-

covery, he was himself a believer in the barium chloride treatment. In his experience one of the most pronounced symptoms of twist was the sitting up of the horse on his haunches, dog-fashion.

Mr. WYLLIE said the paper opened up a great field for discussion and instruction. He had been much interested in Mr. Slocock's reference to the use of *Cannabis Indica* with a view to relieving pain only. He had used it himself, but had never had the good fortune to have a case recover; and he should certainly doubt if it had any curative effect in a twist. As to diagnosis, cases of twist and of colic were, to begin with, very much alike. He added his thanks to Mr. Willett for his able paper, which, he added, would at any rate have an antiquarian interest when we had no horses. (Laughter).

Mr. LEPPER said he noticed that Mr. Willett rather deprecated the use of aloes in a case of colic. He (Mr. Lepper) gave it, followed by a sedative. He did not think there were any indicative symptoms of twist. Certainly rolling did not cause it, or they would get it in racing stables. He thanked Mr. Willett for his kindness in bring the paper forward.

Mr. J. C. COLEMAN described two very interesting cases which he had had within the previous fortnight, which showed no violent symptoms of pain at all. In his opinion there were no cases in which twisted gut occurred as a first trouble, except through an accident. He believed it was the result of pain, set up probably by cramp of the longitudinal and circular fibres of the intestine, and was entirely a secondary condition. Improper diet would of course be a cause of colic. He had faith in the administration of arecoline in slight cases, if they were taken early.

Mr. UPTON said he had had considerable experience in the feeding of horses, and made many post-mortems. In his opinion what was known as twist of the small intestines was due to a form of poisoning. There was impaction, distension of the bowel with gas and subsequent strangulation. There were certainly cases of rupture of the mesentery and dislodging of the bowel due to injury, but they were comparatively rare. To wit: the small amount of colics in hunters and racehorses. Chaff of wet and mildewed hay and subsequently steamed was, in his opinion, after the second fermentation, unwholesome, but while horse owners would feed upon anything that was five or ten shillings a ton cheaper, they had to abide by the consequences. Continual eructation of gas through the mouth and, so to speak, a reversed peristalsis, he looked upon as fairly diagnostic of twist in the small intestine. Loss of peristalsis with consequent dilatation and strangulation of the large intestine was mostly due to worms, particularly in young animals, in fact he questioned whether the bowels ever thoroughly recovered from a bad attack of verminous ulceration.

Mr. MALE said he would, personally, like to add his thanks to those of the other members to Mr. Willett, who at very short notice contributed the extremely interesting paper which they were discussing. As to twist of the small intestines, he thought some experiments were made abroad with a view to discovering the cause, and he believed those experiments went to show that in the majority of cases it was a question of irregular watering and feeding, giving water when the bowels were empty. They could quite imagine—when they considered the structure of the bowels of a horse, and how they were suspended in the abdomen—that a quantity of water rushing in when the bowels were empty and in a certain position would cause a swing round. As Mr. King had noticed, horses fed regularly, like racers, rarely had twist, while cab and other horses fed irregularly frequently had it.

Then as to the length of time from the first symptom to death, Mr. Willett said about twelve hours, but he (Mr. Male) had one case recorded of about eight

hours. Mr. Willett had given them a very good list of symptoms in typical cases.

Some years ago he (the speaker) tabulated all the symptoms in cases of twist which he had proved by post-mortem, especially noting the condition of the mucous membranes, the pulse, etc. He went to another locality, and three cases of twist which he had in a fortnight were like those Mr. Coleman had mentioned, where the mucous membrane, instead of being injected and red, were almost as white as paper, the pulse soft and full, and the animal showing no violent symptoms. In many cases of twist they would find that the bowel was full of extravasated blood, and he thought that very pale mucous membranes were in many cases symptomatic of twist.

Some years ago he experimented on the effect of morphia in cases of twist—of course they all tried to relieve suffering as much as possible. He had given morphia to the extent of 30 grains in a few hours, but it caused delirium, and he did not advise it in large doses. He found that six grains, injected hypodermically, had a better effect. He thought examination per rectum useful in diagnosis; and agreed that puncture of a distended bowel was good practice.

Mr. PERCY SIMPSON said that there were very few cases of twist among the Army horses that he had charge of, although they were given large quantities of water.

Capt. REES-MOGG did not advise the use of Cannabis Indica in large doses, as the after effects continued for some days. He preferred Chloral hydrate.

Mr. WILLETT, in reply, said his paper was a very incomplete one, it was written in a hurry, to fill a gap. He feared the profession had not got much further in their knowledge of the causation or even of the symptoms of twist. He agreed with Mr. Slocock that the affection of the small bowel was due mainly to bad diet; but not that general overwork had any connection with twist. He had certainly found Cannabis Indica to be useful, but agreed with Capt. Rees-Mogg that Chloral hydrate was much to be preferred.

As to vermicular colic, he must say he quite lost sight of the matter when writing the paper, but he agreed with Mr. King that there were more cases of such colic than were credited. He might be obsessed with the arecolin treatment, but he preferred it to any other drug, not excepting aloes. He did not quite agree that a horse sitting up like a dog was a sign of twist in the small bowel, but he considered it indicative in the case of the large intestine. Temperature was not at all indicative. He was not satisfied as to whether twist was the result of pain or whether the pain followed on the twist. They were mostly in agreement, he took it, that the trouble was mainly dietary, and that conditions differed in the country from those in towns. His experience of the effect of morphia in cases of twist was that it disguised the symptoms to a great extent. He was glad that Mr. Male agreed with puncture as a means of treating some cases.

In conclusion, he thanked the members very much for the way in which they had received the paper, and for the valuable discussion which had taken place. (Applause).

The PRESIDENT said he had not been able to take part in the discussion, as it concerned a thing of which he had not much practical knowledge of late years. He would like the more on that account to express their thanks to Mr. Willett for his very interesting paper. (Applause).

Mr. WILLETT acknowledged the compliment.

#### THE INTERNATIONAL CONGRESS.

The PRESIDENT said that he wished particularly to raise the question of the International Veterinary Congress. The response to the first appeal was most gener-

ous from this Association, promises amounting in all to about £96 having been received. That was all very well, and all very good; but the Association had 53 members, and the sum named had been contributed by only twelve of them. Connected as he was with the Royal Counties' Association, he would like them to put up a pretty good show; and he would like every member to promise something. They had still about £2,000 to raise; and it was necessary that the arrangements should be made in advance. (Hear, hear).

The President having to leave at this stage of the proceedings,

Mr. SIMPSON proposed a very hearty vote of thanks to Mr. Stockman, not only for presiding at that meeting, but also for the way in which he had acted as President of the Association during the year.

Mr. KING seconded the motion with great pleasure, and it was carried with hearty acclaim.

The PRESIDENT said he was very much obliged to the gentlemen present for their thanks. He greatly wished that he could have done more for the Association. He was quite sure that in Mr. Wyllie they had "a better man for the job," and it would be a pleasure to him to help him to the best of his ability. (Applause).

Mr. Wyllie then took the chair, and presided over the remainder of the meeting.

#### THE ROYAL SANITARY INSTITUTE CONGRESS. —

##### REPORT OF DELEGATE.

Gentlemen,—I had the honour to represent the Royal Counties' Veterinary Association at the Congress of the Royal Sanitary Institute, held at York on July 27th to August 3rd, 1912.

On Saturday 27th the Exhibition was opened by H.R.H. Prince Arthur of Connaught, K.G., and Monday was devoted to a reception of the members and delegates by the Rt. Hon. The Lord Mayor, a public luncheon in the Guildhall, and in the evening an inaugural address by the President of the Congress, the Most Rev. His Grace the Lord Archbishop of York.

These events were not of much interest to the veterinary profession from a scientific point of view, and being rather pressed with business matters at home I did not arrive in York until late Monday evening.

On Tuesday, 30th, the Rt. Hon. The Lord Mayor of York (Alderman Norman Green) opened the Congress at 10 a.m. with an historic review of the City of York. The only paper discussed that day which was of any interest to the profession, was one on "The necessity for the Compulsory Abolition of Private Slaughter-houses in Towns by Act of Parliament, by Councillor J. M. Hogge, M.A., M.P. (York). This was read at 11.30, and provoked a good discussion. The difficulties of strict inspection of meat were pointed out where many private slaughter-houses existed in a town, or just on the outskirts. On the other hand it was shown that there are many serious obstacles in the way of abolishing old licensed slaughter-houses. The tenant of such a place is often quite willing to carry out his slaughtering at a public abattoir, but the landlord has much to say with regard to the price to be paid for compensation for loss of the license.

All taking part in the discussion were unanimously in favour of the public Abattoir as against the private slaughter-house; many very strong arguments being used to uphold this contention, although the case for the butchers and landlord was very fairly put by the essayist and others.

At 2.30 the members and delegates were taken by steamers to Naburn Locks, visiting the Palace of the Archbishop on the way out, and the sewage works on the return journey. All that was seen was of interest, and instructive, but the only point that particularly struck me was the emptiness and deserted appearance of the Archbishop's stables.

At 8 p.m. a most interesting lecture and lantern demonstration was given by Prof. Karl Pearson, M.A., LL.B., F.R.S. on "Eugenics and Public Health." By means of statistical tables shown on the screen and explained by the Professor in a bright and amusing way, many old ideas as to the rearing of children were shown to be false, and many things that were thought to be injurious to the young are not so, provided they are born of healthy stock. As an example the mortality among infants of healthy parents reared on the bottle is distinctly less than in infants breast fed, but born of weakly parents. So, too, the mortality is *higher* in infants living in *four-roomed* tenements but whose parents are not clean living and well behaved, than it is in those living in *two-roomed* tenements where the parents live a healthy and moral life.

The whole lecture went to prove that all the sanitary precautions, as to ventilation of houses, feeding, etc., although of great benefit can never make the offspring of the weak and unhealthy equal in stamina and vigour to the young of healthy parents. There was much in this lecture that appealed to the veterinarian when applied to the selection of sires and dams for breeding.

On Wednesday, July 31st, there were no less than 20 papers to be read and discussed between the hours of 10 and 2. The only one that requires reporting on was "Reasons why butchers should be compensated on the surrender of tuberculous carcasses," read by Mr. G. H. Anderson, chief meat inspector of Middlesborough, all the others were outside our sphere of activity.

The main discussion was on the *pro et con.* of compensation insurance by butchers. The consensus of opinion seemed to be for *not* compensating the butcher, some saying that an animal being affected with tuberculosis was a legitimate trade risk that the butcher should take when buying the animal. Some speakers were for throwing the onus of the loss of the carcass on the producers. Schemes by which butchers could insure against loss were explained, but nearly all of them barred old cows and dairy fed pigs. One inspector from the south coast made the rather remarkable statement that he only found one tuberculous carcass in twelve hundred and fifty examined.

The afternoon and evening was spent visiting the factories of Messrs. Rowntree, of chocolate and sweets fame, and after the inspection the visitors were entertained to tea. Dancing, gymnastic and swimming displays by male and female employees were given on the lawns and in the swimming baths adjoining the factory. Unfortunately heavy rains somewhat spoiled the outdoor performances.

Thursday, August 1st was a day of rest, as far as papers and lectures were concerned, and was entirely devoted to sight-seeing.

Although there were many papers down for discussion on Friday nothing of any interest to the veterinary profession was brought forward.

The Veterinary Inspectors section of the Congress met at 10 a.m. on Saturday, under the genial presidency of Prof. J. R. U. Dewar, F.R.C.V.S. The number of veterinarians attending was lamentably small, and I think it is a great pity that members of the veterinary profession do not attend in greater numbers. In many of the papers discussed during the week the right of the veterinary surgeon to hold public health appointments was fully recognised, but also, when the veterinary section was opened about 10 members of the R.C.V.S. appeared to uphold the dignity of the profession.

After Prof. Dewar had delivered his inaugural address to an audience of thirty-five or over, a discussion on the subject of "The Eradication of the Milch Cow" (which was poorly brought forward by your delegate) ensued. The subject was one which, although discussed at the end of a long congress, produced plenty

of speakers—Medical Officers of Health (among whom were Sir Shirley Murphy), meat inspectors, naval doctors, delegates from town and city councils, veterinary inspectors and others all having something to say on the subject.

Next followed a paper on "Foot-and-mouth Disease" by Mr. D. George Collins, chairman of the City of London Cattle Markets Committee, in which the essayist wished to show that there was not the danger in allowing the importation of animals from affected countries that there is supposed to be, provided they were kept in quarantine before being shipped and after they had landed, and were slaughtered at the port of landing. He pointed out what great loss had occurred to several of the English seaport towns through the traffic in live stock being stopped, also that many distinct trades dealing with by-products of the slaughterhouse have been seriously injured. His contention was that although cases of foot-and-mouth disease had been landed at Deptford, no evidence had been produced that this disease, or any other, had been disseminated from that or any other foreign animals wharf.

Next followed a discussion on a paper by Prof. Buxton, M.R.C.V.S., on "Milk in Relation to Disease." This paper did not receive the amount of attention it deserved, partly on account of the unavoidable absence of its author, and partly on account of the lateness of the hour, many of the audience leaving to catch trains, or to attend the closing meeting of the Congress, held in the Guildhall.

Mr. A. H. Archer, M.R.C.V.S., was then called upon to read his paper on "Notification of Death of the Lower Domesticated Animals." In this paper the author showed that if compulsory notification of deaths, and subsequent inspection and certifying as to the cause of death by a qualified veterinary surgeon were instituted, many cases of anthrax and other diseases would be brought to light. The *modus operandi* proposed was that all stockowners should be supplied with forms, these forms to be properly filled in on the death of an animal, and a qualified veterinary should state on the form the cause of the animal's death. Here again time prevented an adequate discussion.

The most unsatisfactory part of the Congress is that the veterinary section is relegated to the fag end of the Congress, when nearly all are anxious to return home, but I do not think the Sanitary Institute can be blamed for so placing this section on the programme, when such apathy is shown by veterinary surgeons and by the meagre support they give to the section and the Congress as a whole.

PERCY J. SIMPSON.

Mr. MALE said he had been given to understand by those who attended the Congress that Mr. Percy Simpson's own paper was one of the most interesting read there, and that it was very favourably received; but Mr. Simpson had not mentioned that in his report.

Mr. WILLETT drew attention to the fact that at the congresses veterinary surgeons had always been put at the fag end; and that resolutions brought forward by members of the profession had been declared to be too late to be embodied. (Hear, hear). Those congresses did not appear to do the profession any good; and if they were not better treated he thought it would be well that they should cease to send delegates. He would like a resolution to be formulated and forwarded by the National Association expressing those views. (Hear, hear).

Mr. J. C. COLEMAN supported Mr. Willett in what he had said, although he agreed with Mr. Simpson that the lethargy of the profession was greatly to blame. Many medical officers appeared to be against veterinary surgeons taking an interest in public matters, being afraid, apparently, that they were going to usurp their



positions. He gave a very interesting account of his own experiences at one of these congresses.

Mr. WYLLIE observed that the veterinary profession was relatively very young, and a small one compared with the medical, but he thought the medical officer of health was gradually coming to recognise that the veterinary surgeon had a right to some of the duties he had been paid for.

After some further discussion, Mr. Willett gave notice that he would bring up a resolution, framed on the lines he had indicated, for discussion at the Reading meeting.

Thanks were accorded by acclamation to Mr. Simpson for his report, on the proposition of Mr. Wyllie, seconded by Mr. Tennant.

#### A PECULIAR "SPECIMEN."

Mr. J. C. COLEMAN showed a large iron clamp which had been found in the uterus of a fat heifer, which appeared to have been otherwise healthy.

#### FEES PAID BY PUBLIC BODIES.

The Hon. Sec. reported in regard to this matter—which appeared on the agenda—that the National Society had it in hand, and had appointed a small sub-committee to collect information and statistics; and that when they had made their report it would be sent to the local societies for discussion, so that it was not necessary to go into it that day.

#### FEES PAID BY INSURANCE COMPANIES.

The Hon. Sec. informed the meeting that concerning fees paid by Insurance Companies for inspection of live stock, Mr. Toope, Secretary of South Eastern Veterinary Association, had written to him that "it would strengthen the hands of the Society if this Association passed a resolution expressing approval of the measures they were taking in regard to the increase of the fees paid now by the Companies."

Mr. Stocock moved: "That in the opinion of this Association, the members of which are quite in agreement with the South Eastern Association, the fees at present paid by Insurance Companies to veterinary surgeons are utterly inadequate, useless to the Insurance Companies, and an insult to the profession."

The motion was seconded by Mr. J. C. Coleman, and carried; and the meeting closed with thanks to Mr. Wyllie.

G. P. MALE, Hon. Sec. & Treas.

#### LINCOLNSHIRE AND DISTRICT VETERINARY MEDICAL ASSOCIATION.

The autumn meeting was, by the kind invitation of S. Stockman, Esq., M.R.C.V.S., held at the Laboratory of the Board of Agriculture, Alperton Lodge, on Tuesday, November 12th. The President, H. H. Truman, Esq., M.R.C.V.S., took the chair, and the following gentlemen signed the attendance book:—Messrs. F. L. Gooch, Stamford; E. W. Parks, Wellingborough; R. W. Knowles, Wisbech; T. Hicks, Sleaford; A. R. Routledge, Louth; W. W. Grasby, Daventry; C. Hartley, jun., Lincoln; T. Spencer, Kettering; C. W. Townsend, Long Stanton, Hon. Sec.

Visitors: G. Wartnaby, Burton-on-Trent; H. D. Lewis, E. J. Burdred, Sheffield; H. Gooch, A. H. Berry, E. Brown, Assistants Board of Agriculture; T. V. Nicholas, C. H. Townsend.

The Hon. Sec. announced he had received letters and telegrams regretting inability to be present from the following members; Messrs. W. A. Allott, T. B. Bindloss, G. Lockwood, A. D. Lalor, L. L. Leach, J. Mackinder, J. H. Poles, W. Shipley, B. A. Searby, E. Wardrop, and T. Rudkin.

#### INTERNATIONAL CONGRESS OF 1914.

The Hon. Sec. stated that since the last meeting of that Society, a meeting in connection with the Congress had been held in London on October 11th last, at which, on behalf of the Society and also because he was a member of the Committee of organisation of the said Congress, he had attended.

The business which took place at that meeting had been fully recorded in *The Veterinary Record* and had no doubt been read by those present that day. The principal object of that meeting was to settle a proposed programme of subjects to be discussed, for submission to the Permanent Commission which met at Lyons in October last.

A considerable discussion by those present at that meeting took place, and personally he was of opinion that a most interesting programme was ultimately agreed to.

The Hon. Sec. said that in the letter before them he had been asked by the Treasurer of the Congress (Mr. Garnett) to give in the names of any gentlemen of the Lincolnshire Society who had already given, or who had promised to subscribe to the funds of the Congress. He had replied to the Treasurer that as his list at present was not, in his opinion, a sufficiently representative one of the Society, he wished to defer handing him the list until after the next meeting. He felt sure there were several members who had not yet subscribed who would ultimately do so. He would like to add that he would be pleased for those members who intended to subscribe, to kindly send in their names together with the amount they intended to give as soon as possible.

Mr. TRUMAN: Gentlemen, this Congress, as you no doubt already know, was started by an Englishman—the late Prof. Gamgee. The year 1914 will, I am told, be the 50th year since its inauguration. Wherever the Congress has been held abroad our English delegates have been handsomely and hospitably received and I feel sure it is the wish of the profession that we should return that kindness and generosity in a manner befitting our profession, indeed we should not be Englishmen if we did not make up our minds to do so. Again, I know that as a Society our members do not want to be behind the kindred societies. The holding of this Congress in England is of itself an important undertaking; it is a matter that each individual member should seriously consider. I hope that the members will readily respond to the appeal for subscriptions; I should be only too pleased to do my part, and I feel sure that when the members have well considered the objects and aim of this Congress, they will give it their support.

Mr. Gooch, speaking of the objects of the Congress, said that like the previous speakers he hoped each individual member would do his very best in the way of subscribing to the funds, no matter how little the amount was; he knew that several members of that Society, and particularly the Secretary, who he was sure had taken considerable trouble in the matter, were desirous that their Society should do justice to the funds of the Congress and did not want their Society to be in the background as regards subscriptions. Although the members had not yet responded as he would like to see, he hoped that every member would ultimately do what Mr. Townsend had already asked them to do—send in their names either to himself, Mr. Garnett, or their Hon. Sec. The question as to whether or not their Society itself should give a donation was a matter he would like to bring forward at their annual meeting, at Grantham in February next year. He would like to move that this question should be placed on the agenda at the next meeting.

This motion was unanimously agreed to.



Mr. STOCKMAN, in thanking the President for being allowed to make a few remarks upon the subject of the Congress, said that as Hon. Secretary of that Congress it would of course greatly facilitate him in his work and matters generally if he knew the exact amount that would ultimately be forthcoming. It was not necessary for subscribers to send in the actual subscription at present; what he did wish was for those gentlemen who thought and intended to subscribe to simply send in their names and amount as soon as possible.

Personally, although they had not yet been promised the actual amount—£3000, which perhaps at first thought seemed a lot to get together, he himself had no doubt that the amount would ultimately be forthcoming. In a measure, however, it would be a great relief to him as Hon. Sec. to know as soon as possible if this would be the case.

#### CORRESPONDENCE.

The HON. SEC. stated that he had received letters from the South Eastern Veterinary Association in connection with the fees payable to veterinary surgeons by Local Authorities, and fees payable by insurance companies.

The members present were of opinion that sufficient time for adequate discussion of these subjects was not available that afternoon.

On the motion of Mr. Parks, seconded by Mr. Grasby, it was unanimously decided that the discussion upon the subjects should be postponed until the next meeting, the Secretary being instructed to write to the Secretary of the S.E. Society informing him of the resolution passed.

#### ELECTIONS AND NOMINATIONS.

Messrs. A. R. ROUTLEDGE, A. YOUNG, T. N. CLARKE, A. MCTURK, W. WESTGATE, were balloted for and duly elected members of the Association.

Mr. A. J. HINES, M.R.C.V.S., Grimsby, Lincs., was proposed by Mr. Townsend, seconded by Mr. Hicks as a future member.

Mr. GOOCH moved that at the next meeting the Anaesthetics Bill, also the matter of the purchase of new instruments be brought before the members, and the Secretary was asked to place these on the agenda for discussion at the next annual meeting.

#### DEMONSTRATION BY MR. STOCKMAN.

The members adjourned to the Laboratory, where Mr. Stockman demonstrated and described the latest methods of Immunisation and Diagnosis of Contagious Abortion.

Mr. STOCKMAN remarked that although the time at their disposal that day would not allow him to go fully into all the methods available for diagnosis of contagious abortion, he hoped that in the short time at their disposal he would be able to show them certain methods that would be of interest to them and possibly also add something to their present knowledge of the subject. Several methods of diagnosis which he proposed to demonstrate were such that country practitioners could easily adopt themselves.

The methods of obtaining and staining material from suspected animals were shown. The various staining reactions and morphological appearances of the contagious abortion bacillus were also demonstrated. The appearances of the bacilli as shown in the various culture media were exhibited—specimens growing in agar, agar gelatine serum (raw), potato, glycerine broth and raw serum.

The microscopical appearances of the bacilli as grown in the above media were also shown, Mr. Stockman remarking that the characteristic clumping of the bacilli, which latter was shown particularly in the culture specimens, microscopically afforded a valuable aid to diagnosis.

The agglutination test as an aid to diagnosis was fully explained, also the fixation of the complement test.

Mr. Stockman went on to show the method of preparing the vaccin-abortin, also the various methods of using the vaccine, remarking that its usefulness as an aid to diagnosis in suspected animals was now regarded as an important factor.

Mr. Stockman invited the experience of those present upon the use of abortin. A considerable discussion took place, it being the general opinion that abortin should in the future form a valuable aid to diagnosis in suspected animals.

Microscopical specimens of the various Piroplasms of Red Water, Trypanosomes, Anthrax Bacilli, various mange parasites and other organisms were shown.

Numerous pathological specimens were also shown. Particular interest was taken in those of foot-and-mouth disease; the nature and character of the lesions was fully explained to those present.

The members were hospitably entertained to tea by Mr. Stockman.

Mr. TRUMAN, in moving a vote of thanks to Mr. Stockman for his kindness in inviting the members of the Society there, said he would like on behalf of those present to thank him for the trouble he had taken in giving them such an able and practical demonstration. It was not often that country practitioners had such an opportunity offered to them. He himself, and he thought he might truthfully say the Lincolnshire Society took it as an honour to be invited there, and they were all greatly indebted to Mr. Stockman for inviting them. Personally he had learnt a good deal that afternoon, and he felt sure that all of them had gained knowledge upon the various matters that had been shown and explained to them. As country practitioners they had frequently to thank the Board of Agriculture for assistance, which was always willingly and freely given. In that important subject, Contagious Abortion, he was of opinion that agriculturists, and indeed the country generally, were greatly indebted to the efforts of the Board in attempting to eradicate the disease—a disease which caused tremendous financial loss to farmers every year.

In conclusion he would once more like to thank Mr. Stockman for his kindness and hospitality shown to them that day.

Mr. GOOCH wished to add his thanks to Mr. Stockman for the kindness and hospitality displayed to them that day. He knew the members of the Lincolnshire Society were greatly indebted not only to Mr. Stockman for his kindness in coming down and giving them such an able address at their summer meeting, held at March in June last, but also for the trouble he had taken in giving them such an interesting demonstration that afternoon.

Although much had been learnt in recent years with regard to the pathology and bacteriology of contagious abortion, there was still left a good deal to occupy their minds. He, however, thought that in the discovery of the vaccin-abortin, a valuable diagnostic agent had been found, which should, in time to come, prove a valuable asset in eradicating the disease in infected herds.

Mr. GRASBY also, in thanking Mr. Stockman for giving them such an interesting and instructive demonstration, said he felt sure few could go away that afternoon without admitting that they had learnt something, and added materially to their present knowledge, not only of contagious abortion and foot-and-mouth disease, but also in laboratory methods generally. Personally, he must say that the afternoon had been a most enjoyable one. He, like Mr. Truman, felt that country practitioners and the country generally owed a great deal to the Board of Agriculture and its officers. Great credit was

due to them for the effective way they had dealt with the recent outbreak of foot-and-mouth disease. With regard to contagious abortion there was yet a good deal of work to do before the disease was under control. The use of abortin as a diagnostic agent would no doubt prove ultimately an important factor in eradicating the disease. In his opinion contagious abortion should be a scheduled disease.

Mr. STOCKMAN, in replying, said, it had given him great pleasure to entertain the members of the Lincolnshire and District Veterinary Society at the Laboratory that afternoon. He very much regretted that the meeting had had to be postponed on his account on two previously arranged dates; this he felt sure the members all understood was through no fault of his own, he had, as they knew, been unfortunately called away on official duty, and of course had to go.

Mr. GRASBY had just told him in his speech that country practitioners owed a good deal to the Board of Agriculture, he thought he might reciprocate, and say that the Board, and indeed the country and agriculture generally, were greatly indebted to the assistance and knowledge of country veterinary surgeons. It was generally to the country practitioner that the Board had to look in the first instance for outbreaks of contagious disease.

For morbid and other specimens, which they were always pleased to have, they were also frequently indebted to the country practitioner. He was of opinion that the Board of Agriculture and country practitioners should co-operate and work together as much as possible. It is only by the combined efforts of both that contagious diseases and their outbreaks can be stopped. As regards contagious abortion, a great deal had been done and great progress made, especially with regard to the diagnosis, and if only the abortin test could be applied more extensively on infected farms, he thought there was no doubt that the disease would occur much less widely. There was no doubt it occurs very extensively, and what he would like to see was for contagious abortion to be scheduled under the Contagious Diseases Act. To him it seemed a diabolical thing that a farmer can have a cow abort and if he chooses can send that cow to market—and this when he pleases to do so. This method is one by which the disease frequently spreads. In conclusion he would like to say, he believed this was the first visit that Society had held at the laboratory, he hoped that in the future they would have many more. (Applause).

#### CLINICAL SPECIMEN.

Mr. A. R. Routledge exhibited a most interesting dental specimen from a four year old cart gelding, bred and owned by owner from birth. The off side of face was enlarged over the inferior maxillary sinus: the animal had always done badly, and had intermittent nasal gleet.

Horse cast, mouth washed out, mouth gag applied. Examination showed the 2nd and 3rd right upper molar to be extensively diseased, and a permanent molar corresponding to the third, growing on the inner side of the row in the roof of the mouth. The whole being in a very foetid condition. Method of extraction— a chisel inserted between the extra molar and the diseased teeth, which latter were loosened and extracted. The extra permanent molar was next extracted, the latter had a distinct bend in its length and projected up into the nostril. The diseased mass of tooth structure was composed of the 2nd and 3rd temporary and permanent molars, fused together, weighing with the extra molar 9½ ounces. The lower teeth were sheared and rasped. The horse is now doing well and improving in condition.

C. W. TOWNSEND, Hon. Sec.

#### BORDER COUNTIES VETERINARY MEDICAL SOCIETY.

A meeting was held at the Bush Hotel, Carlisle, on Friday, Nov. 8th. when there were present: Mr. F. W. Garnett, J.P., Windermere, the President, who occupied the chair; Messrs. H. Barrow, Ambleside; R. H. Bird, Dumfries; J. Donald, Wigton; F. G. Ashley, Dalston; R. Craig-Robinson, Carlisle, Hon. Sec. and Treasurer; and Dr. Bradley.

#### THE INTERNATIONAL CONGRESS.

The CHAIRMAN mentioned the matter of a subscription to the International Veterinary Congress to be held in 1914. He said all the Societies were not only subscribing, but each was organising a fund for it.

The SECRETARY, in reply to a question by the Chairman, said this Society had £27 to the good.

The CHAIRMAN: We could give quite a fair grant towards it. I am sure it is a right course for a Society such as ours to take. The Congress will do the profession more good than anything we have had before. It has been well supported up to the present by the rank and file of the profession, and I think we can do our little bit on the north west as well as the outlying portions.

Mr. DONALD: What will you require?

The CHAIRMAN: Between £4000 and £5000.

Mr. DONALD: How much have you secured up to the present?

The CHAIRMAN: If you include the £1000 Sir John is trying to collect, we shall have about £2300 at present. It is a big thing to tackle and undertake. In foreign countries the expenses of these congresses are paid by the Government; our Government cannot do anything in the way of paying the expenses of the Congress. It has all been got up by the Government, and through the Foreign Office principally, and it is the Foreign Office that issues the invitations to foreign countries to send delegates, and the Foreign Office will help to entertain them. Most of the subscriptions are being spread over three years.

Mr. DONALD: I can see it is a desirable thing to support the Congress; but is it desirable to deplete our funds and impoverish ourselves to enrich the country?

The SECRETARY: We have £27 in hand and the expenses are not great.

The CHAIRMAN: I don't think we could use our funds to a better purpose.

Mr. DONALD: What have other Societies subscribed?

The CHAIRMAN: Two lists were published in *The Record* last July. The Royal Counties had promised up to that date £212, and the Lincolnshire or Eastern Counties had got over £100. These are quite small Societies and they have done very well.

Mr. BARROW: I think we should do something as a Society.

Mr. DONALD: Would it not be well to defer the matter till next meeting so that we can think it over?

The CHAIRMAN: Will we get a bigger meeting next time?

Mr. DONALD: I hope so; but I don't know.

The CHAIRMAN said he was disappointed with the meeting.

The SECRETARY said he was sorry the meetings were so badly attended. He had not received any apologies for absence.

Mr. DONALD: You make too much of the people outside the Society. They get the same attention as if they were members. You had better have a small number of active members than a large number of whom not a tenth turn up.

The SECRETARY: I send invitations to those who are not members in the hope that they will become members.

The CHAIRMAN did not think there was any likelihood of them getting a better attendance. If they would not come to hear Dr. Bradley they would not come at all.

It was agreed to leave the matter over till the next meeting.

#### THE SOCIETY'S INSTRUMENTS.

Mr. DONALD asked if the Secretary had got the instruments belonging to the Society.

The SECRETARY replied that the instruments had not been in his possession yet. He inquired who had them.

The CHAIRMAN said he never had them when he was Secretary. They were always kept in Carlisle.

The SECRETARY: It would be well if someone proposed that I should write to the gentleman who has them, and ask him to hand them over to me.

Mr. DONALD: Certainly. I raised the question at the first meeting. Two forceps were missing. It is about time we had them.

Mr. Donald moved that Mr. Hewson be asked to hand over the instruments to the Secretary. This was seconded by Mr. Ashley and carried.

The CHAIRMAN, before calling upon Dr. Bradley to deliver his lecture, apologised to him for the smallness of the meeting. He felt it very acutely that there was not a better muster of members to hear Dr. Bradley's lecture. If members would not come to hear lectures by an eminent gentleman like Dr. Bradley, it was pretty well time they closed the Society up. The least that the members could do to show their appreciation of the pains and trouble taken by Dr. Bradley was to come to hear him, and gain the instruction which they were likely to get. (Hear, hear).

#### ACQUIRED CHARACTERS.

ADDRESS BY DR. O. CHARNOCK BRADLEY.

When I was requested by your secretary to do something for the Society I need hardly say that I consented with pleasure, remembering that it is something like fifteen years since I was here before. The only difficulty I had was to decide upon a suitable subject—a subject which would be of sufficient interest to each and every member of the Society—and it occurred to me that there is good reason for holding that the problem of the transmission of acquired characters should be of interest to both the general practitioner to the specialist. After all, this question is not of academic interest, pure and simple. It applies to the more practical aspects of veterinary and agricultural science. If acquired characters are transmissible, then obviously, the conduct of the breeder will be governed accordingly; if they are not transmissible then the breeder will likewise take that into account.

In the first place, it would clear the ground a little if I say I am not going to support either the affirmative or the negative. I propose, as far as in me lies, to hold the balance even, and present both sides of the question in order that you may form your own conclusions. As a matter of fact I may say that, personally, I am convinced that at the present time no one is entitled to give a definite answer to the question: Are acquired characters transmissible? As in many other questions there is much to be said on both sides. It will take years of careful observation and experiment before this problem will be anything near solution.

In the first place let me state the problem. It comes to this: Is it possible for a character which has been acquired during the lifetime of an animal to be transmitted to progeny? Let me expand this by giving you the definition of an acquired character as drawn up by Arthur Thomson, who has given much thought to the question. Thomson's definition is this: "An acquired character, or somatic modification, is a structural change in the body of a multicellular organism, involving a deviation from the normal, directly induced during the individual lifetime by a change in environment or in function (use and disuse), and such that it transcends the limits of organic elasticity, and therefore persists after the factors inducing it have ceased to operate." Let us see what this means. It applies only to multicellular organisms. It cannot be considered as holding for the unicellular, for the reason that here there is no differentiation of the germ cells and ordinary body cells. Multicellular organisms alone can be considered as capable of "acquiring characters." Then it is important to remember that the change or modification produced must be such that it transcends the limits of organic elasticity; that it persists after the action of the modified agent or factor has been removed. This is a very necessary part of the definition, for it is well known that it is not difficult to cause modification in, say, a plant. It is not difficult to cause modification in a plant by altering its surroundings; its food stuffs, their quantity and quality; by modifying the temperature. But we know also perfectly well that once the factors which have produced the change are removed the plant goes back again to its former condition, i.e., the modification has not transcended the limits of organic elasticity.

Perhaps I need hardly go into the historic origin of the problem except to say that it may be regarded as having commenced with Lamarck's famous propositions. Lamarck, the famous French biologist who lived from 1744 to 1829, was a man of very considerable personality. He was destined for the church; changed his mind and purposed entering the Army; but meeting with an accident, he had to abandon the idea, and became a banker's clerk. A sedentary occupation seems to have turned his mind to biological problems. He was assistant for a time to Buffon in Paris. He died poor and blind, but left his stamp on biology, a stamp which will never be absolutely removed, though the depth of the imprint may be diminished by age.

I will state his four great propositions. Three of them have become out of date but the fourth remains.

Lamarck says that (1) life tends by its inherent forces to increase the volume of each living body and of all its parts up to a limit determined by its own needs; (2) new wants in animals give rise to new movements which produce organs; (3) the development of these organs is in proportion to their employment; (4) new developments are transmitted to offspring. Lamarck considered that the long neck of the giraffe had arisen from the animal's desire to browse on the tops of trees; that the webbed feet of the aquatic bird had arisen from constant spreading out of the toes; that the long legs of the heron were produced by the desire of the animal to keep its body out of the water when wading—that the animal willed, so to speak, and the parts grew accordingly. He held that the snake lost its limbs from the habit it had of trying to hide under herbage and grass. The limbs were therefore in the way and were dropped as a consequence. It has been shown since then that organs do not necessarily diminish solely because of disuse, but rather because there is what has been described by Zeigler and others as a battle, so to speak, between the parts in an organism. In the snake, for instance, a considerable length and volume of body and tail muscles have been developed at the expense of the limbs, i.e., the body and tail muscles have fought, as it

were, for supremacy and have defeated the limbs, which have had to go.

The first three propositions of Lamarck we may pass with these remarks. It is the fourth that matters—that new developments are transmitted to offspring.

As everyone knows it is the famous Freiburg biologist, Weismann, who has done most for the negative side. His germ-plasm theory, which he has worked out with such extreme care and such surpassing ingenuity is that upon which those who hold the negative view have mainly worked and based their conclusions. Weismann holds that the germ cell is to be considered as something apart from the ordinary body cells. When an ovum divides it produces two distinct categories of cells. One kind of cell will become the cells of the body; the others are germ cells. Germ cells come from germ cells only, never from body cells. That is, there is a direct line of ancestry of the germ cells. It follows from this that it is difficult to conceive how a modification of the body cells can affect the germ cell. This is putting it very briefly, and very crudely, but the point is that germ cells are descended from germ cells and never from body cells, which means that germ cells are altogether different from ordinary body cells. That, no doubt, is quite true up to a certain point; but there are arguments that could be advanced against it. It could be said that there must have been at one time or another a common cell, an ancestral cell which was neither a germ nor a body cell, but both; it can quite well be argued that germ cells and soma cells had to be separated by the gradual process of evolution. It can be said, furthermore, that though germ cells can only come from germ cells yet we do know certain conditions under which ordinary body cells can apparently play the part of germ cells. It has been shown that cancer cells behave very much like germ cells; so that it might be contended that here we have body cells which have taken on the characters of germ cells. That opposition might be removed on the assumption that cancer cells are really germ cells in the wrong place, germ cells which, instead of wandering to the germinal nidus have not been able to get to their proper place, have been arrested in their travels and have been compelled to wait a little time as temporary prisoners, and then have asserted themselves and undergone reproductive processes.

Suppose we look for a minute at the affirmative side, viz., that acquired characters may be transmitted. One would first of all naturally ask: How is it possible for them to be transmitted? by what kind of mechanism can it be effected? Let us imagine the case of a multicellular parent having a fragment of the body removed, and let us suppose that the progeny of that parent reproduced the mutilation. How is it possible for that mutilation to have been transmitted? The easiest, but not most satisfactory, mode of explaining it would be to revive the old pangenesis theory of Darwin.

Darwin thought that every cell of every multicellular organism contributes certain particles, which find their way to the ovum of the female or the sperm of the male. They remain there, with the result that in each ovum and each sperm there is, so to speak, something derived from all the cells of the parent body and therefore capable of being handed on to next generation. In the case of a mutilation certain particles would be lacking, and so the mutilation might be transmitted. Much might be said in support of a modified pangenesis theory, because one cannot really suppose that the individual cells of the body are absolutely independent units. Modern research has removed any such conception, even if any such ever existed. We know that every cell of the body is more or less dependent on every other cell. To the superficial observer what could be more different and distinct, let us say, than the gland cell and the leucocyte? Gland cells were for long regarded as

peculiar in that their protoplasm contains certain granules of an enzyme character, but similar granules have been shown to exist in practically all cells—even in the ovum itself; so modern research has made it more and more difficult to say there is any real distinction between the secretory cells and other cells. Enzymes of some kind have been found in very many cells of the body; and enzymes do not remain where they are formed.

Herbert Spencer had an idea that the whole protoplasm of the body circulated and wandered about from place to place. Without actually following Spencer, we are compelled as a result of modern research, to the conclusion that there is an extremely free communication between adjacent cells. As a matter of fact in many tissues it has been shown that there are no definite partitions between the cells. What there are are partitions with holes through, so that the protoplasm from one cell is continuous with the protoplasm of the next.

This arrangement of bridges between cells has been known for a long time in connection with the deeper layers of the epidermis of the skin. It has been shown between muscle fibres, and it is possible it will be shown ultimately in nearly every tissue of the body. One of the most modern conceptions of the structure of the heart is not that of a series of independent cells, but of one continuous mass of protoplasm of reticular form and containing nuclei at intervals.

Still more cogent in connection with the problem at present under discussion, is the discovery of a very intimate relationship between the ovum and the cells surrounding it. Moreover, we know, thanks to the physiologists, that many, if not all the tissues of the body produce chemical substances which have the power of stimulating the dormant potentialities of cells even far distant. May not the ovum be affected in some such way by hormones produced by the body cells? Leaving the region of speculation, let us look at one or two concrete cases of alleged transmission of acquired characters.

Some figures given by Brewer, of America, are suggestive in this connection, for he has endeavoured to demonstrate that the speed of the trotting horse is the result very largely of the transmission of acquired characters. His figures are meant to show that speed has been gradually acquired through successive generations, and has been transmitted. Brewer says that in 1818 the trotter did one mile in three minutes; in 1824 that time was reduced to 2 min. 34 secs.; in 1848 the time had become 2 mins. 30 secs.; in 1868, 2 mins. 20 secs.; in 1878, 2 mins. 16 secs.; in 1888, 2 mins. 11½ secs., whereas now it is 2 min. 10 secs., or less. Those who support the negative view may say, with much cogency, that there is a fallacy in the argument since selection has not been taken into account.

There is another instance of the supposed transmission of acquired characters around which there has been a certain amount of controversy, and that is the thickening of the skin of the sole in unborn infants. Walking, it is asserted, has caused a thickening of the skin of the sole, which has been transmitted from generation to generation, with the result that that character is fixed, and here, therefore, is the result of the transmission of an acquired character. The opposition to that view would be that the thickening of the sole seen in an unborn child could be quite easily explained on the assumption of germinal variation. As we all know, the supporters of the hypothesis of the transmission of acquired character have cited the improvements in breeds of cattle. There can be no question that breeds of cattle have considerably improved, and the improvement might be attributed to a change in environment. The change has been one of better feeding, better housing, better nurture, and as a consequence the animal has

transmitted to its offspring a better nature, *i.e.* has transmitted an acquired character, a better physical condition. That offspring being placed once again under good surroundings, under good nurture, has once again improved, and transmitted to its offspring an improved nature, and so on. But it may be asked: Where has selection been all this time? Selection has not been idle, because the breeder has not taken *any* cow from which to get his future stock. He has been careful—he has selected.

Relating to the supposed transmission to the offspring of characters resulting from mutilation suffered by the parent, are all sorts of stories; some apparently well supported, others based on the most flimsy foundations. Two well-known examples may be quoted. Häckel, who is a strong supporter of the transmission of acquired characters, and bases on it almost the whole of his monism, relates how a bull lost his tail by getting it jammed in the door of a byre, and afterward produced tailless progeny. At first glance the case seems a good one, but: How many offspring had the bull after he lost his tail? Did he have any tailless offspring before he lost his tail? and what are the chances of an ordinary bull procuring tailless offspring?

Another case of mutilation is given by Williamson, who mentions a dog in Carolina that had its tail cut off accidentally, and for several generations the progeny of that particular dog had no tails. We know, of course, that un mutilated tailed dogs produce tailless progeny, and so it is possible that this is not an instance of transmission of an acquired character, but rather one of those germinal variations which are coincident.

These cases are isolated single instances; and against them we can set the known fact that the same kind of mutilation, extensively performed and practised upon generation after generation, is not transmitted to offspring. The process of docking horses has not resulted in the transmission of a short-tailed character, nor has circumcision resulted in the absence of a Jewish prepuce.

So far, then, mutilations lend support to those who deny the transmission of acquired characters, but there is one series of mutilation experiments which has puzzled very considerably the disciples of Weismann, and it is probably the only known real authentic scientific instance of the alleged transmission of acquired characters that the negativists have not been able to explain away. Brown Sequard for a number of years performed unpleasant experiments on some thousands of guinea pigs. He cut the spinal cord in the thoracic region, as well as the sciatic and other nerves. As a result of some of his nerve mutilations he produced a condition in some of the animals which resembled epilepsy, and this apparently, was transmitted through five or six generations of offspring.

The whole question of the transmission or otherwise of acquired characters teems with difficulties. I have tried to state the case impartially; I have wanted to lean neither to the one side nor to the other, because it appears to me to be premature to form any definite conclusion. There is so much needed in the way of observation and experiment that it is just as well to say that, as yet, we do not know, but we hope to know some day.

Mr. ROBINSON mentioned the case of a Clydesdale filly that was born with a tail no longer than a lead pencil. It was perfectly developed to within about an inch-and-a-half of the end, and then it was slightly twisted. The animal was four years old and the tail had never grown. The owner of the dam thought the short tail of the filly was due to the dam's tail being tied tight previous to service.

Mr. DONALD said they had all seen cases of that kind, but he did not think they were acquired characters.

Mr. BARROW mentioned the case of a bitch which in one litter gave birth to pups with and without tails, and with half a tail.

Dr. BRADLEY: Do you know the ancestry of the mother?

Mr. BARROW: No, except that she has been breeding this way for years back. I cannot get to know the history. They may come of a Manx breed.

Dr. BRADLEY: They may be related to the old bob-tail.

Mr. BARROW said that he put a smooth collie bitch to a rough collie dog without a tail and got the same result. Mr. Donald had one of the same strain and they breed regularly in that way. They were a noted breed of sheep dogs in the district in which he (Mr. Barrow) lived.

Dr. BRADLEY: You want to know the ancestry in a case like that.

The CHAIRMAN said he would like an explanation of the acquired character of dairy cows.

Dr. BRADLEY: Artificial selection, possibly.

Mr. BIRD pointed out, with regard to the increased speed of trotting horses, that the tracks in America now were like billiard tables, whereas formerly they used to be rough; and not only were the vehicles lighter but the drivers were more skilful.

The CHAIRMAN asked Dr. Bradley whether he considered if the horn of the male Herdwick was an acquired character? There was no doubt, originally, the Herdwick breed of sheep was hornless; that the horn was got from the old moor sheep and that it was only acquired by the male. It was one of those things that upset the whole of Mendel's theories, because with pure-bred Herdwicks and there were perhaps  $4\frac{1}{2}$  or 5 per cent., as far as his investigations went, of the males that were hornless. There was a much larger percentage than that where the horns were arrested. The champion ram at Eskdale this last autumn was nearly a hornless breed. Where females were mated with horned males there was not above one female horned in 500.

Dr. BRADLEY: That cannot be put in the same category as an acquired character. That is due the introduction of new blood.

The CHAIRMAN: I think so. That is surely acquired character?

Dr. BRADLEY: It is not the result of environment. According to the definition of an acquired character it must be the result of environment, use, or disuse.

The CHAIRMAN observed that Herdwick characters were very dominant. Mr. Cheetham, Duddon Hall, had a breed of spotted sheep, with large horns, both male and female. He crossed both ways and the Herdwick characters were dominant, and in the second generation they could not distinguish a gimmer from one of those from an ordinary Herdwick gimmer lamb, the spotted character was so pronounced. These sheep have striking faces. White patches and black sides to the cheek on every one. They have kept their breed of sheep pure for 150 years at any rate. They came out of the Midlands.

Mr. ROBINSON: You mentioned cancer. Do you consider cancer an acquired character that can be transmitted from parent to offspring?

Dr. BRADLEY: You may regard the predisposition to cancer as being transmitted; but you cannot conceive of the actual cancer being transmitted.

Mr. DONALD said he could not call to mind anything he had seen in practice that he considered an acquired character. He could not carry the matter much further than the breeding of cattle and horses; and he thought that improvement due to selection and environment.

They could increase the flow of milk by selecting their animals.

The CHAIRMAN pointed out that they saw the effect of environment in the size of the fell pony. The smallest fell ponies were in the Bampton district. He did not suppose the mares were much above 13 bands; in other districts they went up to 14 easy. This, however, had no effect on the progeny, because when they were taken to better pasture they grew to full size.

Mr. ASHLEY: It is practically starvation.

The CHAIRMAN: It is; they only have a foal once in two years.

Mr. DONALD: She could not maintain them both. You see the effect of different localities. Take, for instance, Clydesdale horses. By the Solway they don't come to maturity so soon, but they develop into better horses than in the Wigton district, where they get too early to maturity on better land.

Mr. BARROW, mentioning shorthorn cattle, said he was told they could grow better hair in his district than in the Wigton district.

Mr. DONALD: You get more hair, but not better cattle.

Mr. ROBINSON: Take Bewcastle. No cattle take the market sooner than blue-grey cattle from Bewcastle; and when they come down on to better land they are good doers and thrive well.

Mr. DONALD: And they are a first-cross, too.

The CHAIRMAN: That is what keeps up the white bull sales.

Mr. BARROW: Would you consider the habit of the turkey in going to the base of a building to shelter, an acquired character, from having lived in the forest?

Dr. BRADLEY: You would call that a natural instinct would you not?

Mr. BARROW: But they will go to places where rain is dripping from the slates. They have been used to going to the root of a tree.

The CHAIRMAN now proposed a vote of thanks to Dr. Bradley for his lecture.

Mr. ASHLEY seconded the motion.

Mr. DONALD supported the motion and associated himself with the Chairman's expression of regret at the small attendance. They had had an intellectual treat and been stimulated to think of things that they might otherwise allow to slip by. The Society had paid Dr. Bradley a poor compliment for his trouble. It was the duty of every member to have put in an appearance; and if he were secretary he would hesitate very much before again asking any gentleman from a distance to give them a lecture. He was absolutely ashamed that there should be only five or six members present. It was little short of an insult.

The SECRETARY also expressed regret at the small attendance and said he had done his best to get a good meeting by circularising all the members, and asking some who were not members. When he asked Dr. Bradley to lecture he conceded most readily, and he was sure those who had been present would go away benefited by the lecture. The motion was carried and Dr. Bradley briefly acknowledged the Society's thanks.

It is announced that Mr. John Pollock, Paper Mill Farm, Langside, Glasgow, is to appeal the filly case against Mr. Berwick, which was decided the other day in the Court of Session, to the House of Lords.

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
GT. BRITAIN.													
Week ended Dec. 14	9		9				4	4	67	141	3	63	678
Corresponding week in {	1911	19	19			1	7	16			17	51	552
1910		29		30			1	4			22	37	388
1909		38		41			2	3			32	29	275
Total for 50 weeks, 1912	722		816		83	642	171	312	2747	5778	285	2843	38516
Corresponding period in {	1911	870	1078	19	487	205	494				392	2381	29214
1910		1403		1668	2	15	337	990			449	1489	14147
1909		1266		1639			519	1726			624	1604	14005

† Counties affected, animals attacked: London 2, York, West Riding 2.

Board of Agriculture and Fisheries, Dec. 17, 1912.

IRELAND. Week ended Dec. 14				Outbreaks							
...	...	...	...	...	...	...	...	3	8	5	25
Corresponding Week in {	1911	...	...	...	...	...	...	1	9	11	85
1910	...	...	...	...	...	...	...	1	9	1	16
1909	...	...	...	...	...	...	...	1	15	1	6
Total for 50 weeks, 1912	...	3	3	68	380	...	...	64	359	211	1663
Corresponding period in {	1911	9	16	...	...	2	3	56	324	171	2499
1910	...	7	13	...	...	1	2	64	435	90	2185
1909	...	8	8	...	...	...	...	74	396	88	1568

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Dec. 16, 1912

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## Royal College of Veterinary Surgeons.

### EXAMINATIONS IN LONDON.

At a meeting of the Board of Examiners held in London on Dec. 9 for the Written, and on Dec. 13, 17, 18 for the Oral and Practical Examinations, the following gentlemen passed their Final Examination :—

Mr. J. Bradley	Mr. W. E. Petty
S. E. Hill	E. M. Robinson
C. J. R. Lawrence	S. L. Slocock *
R. A. Murlless	P. L. Thierry
W. F. Poulton	S. H. L. Woods

The following passed their Third Examination :—

Mr. A. H. Adams	Mr. G. F. Marais *
W. P. S. Edwards	B. J. W. Nicholas
R. C. G. Hancock	M. G. J. O'Connell
W. B. Howe *	W. H. Priston
G. C. Harding *	H. A. Thorne
H. A. King	H. S. Wright

The following passed their Second Examination:

Mr. J. Daly *	Mr. P. S. Sparling
J. A. Edwards	J. H. Stewart
R. W. D. Easom	G. Simons
T. S. Roberts	K. S. Simpson

The following passed their First Examination :—

Mr. H. W. Brekke	Mr. A. Temple
G. H. Bennet	T. H. L. Turner
L. St. Bel Gollidge	P. F. Woodland
J. F. Hedley	

Marked thus \* passed with Second Class Honours.

### The " East Anglian " on the R.C.V.S.

The very curious case heard at Saxmundham Petty Sessions on Thursday, Dec. 5th, must puzzle a good many people. A man was summoned for practising as a veterinary surgeon without being registered to do so. The gist of the evidence against him was that he used a business card on which he described himself as "unlicensed veterinary surgeon." Now, according to all the common sense interpretation of terms, the man by his card intimated to his clients that he possessed no diploma or licence of any kind as his qualifications. If people chose to employ the man on those terms that was their affair; he practised no deception upon them, and this is a free country where folks, if they so please, may pay and employ an unregistered practitioner to give such treatment as is not specially forbidden by law. There is, however, a growing spirit of professional trade unionism in this country, and the Royal College of Veterinary Surgeons is not apparently prepared to leave an outsider to attempt to earn an honest living in this fashion, even though the poor man did his best by his card to indicate that he was not licensed to practise by that or any other College. The prosecuting solicitor is reported to have said that a case similar to this one had never previously been heard of, and most people would agree with the truth of that remark. The defendant made an able defence on the facts, but he had no lawyer to argue his case on the point of law. In the event he was convicted and fined heavily, £10 in all, though no single person was shown to have been damaged or even deceived. All this looks like professionalism run riot to prevent outsiders picking up a few stray crumbs. No doubt it is for the good of the

community that unlicensed and unqualified persons should not be allowed to pose as possessing qualifications without having gone through proper training. No one quarrels with that doctrine, but if a man goes out of his way himself to publish the fact that he is not licensed, how can the public interest be endangered. On the lines of the law suggested by the Veterinary College, it would be dangerous for the man in the street to prescribe a ball for a friend's horse. The decision of the Saxmundham Bench may or may not be right in law, but it is a pity that the High Court has not had to settle this point after hearing arguments on both sides. This is the kind of thing which closely affects the liberty of the subject. Professional men have the right to be safeguarded in the practice of their art, but the general public also has some rights against professional trade unionism.

### ANIMAL DISEASES RESEARCH INSTITUTION.

In the House of Commons, on Monday, Dec. 16, in reply to Mr. C. Bathurst (Wilts., Wilton, Opp.),

Mr. RUNCIMAN said: The Board hope shortly to submit to the Development Commissioners proposals for the establishment of a research institution for the investigation of diseases of animals. It would be premature for me to make any statements to the details of the proposals until the Development Commissioners have had an opportunity of considering them.

The Agricultural Correspondent of *The Times* writes:

It has been felt for some time that an institution of the kind was needed, and the events of the last six months have emphasised this defect in our provisions for dealing with the numerous and often destructive ailments that afflict the animals of the farm. The veterinary profession and the Board of Agriculture are competent up to a point—they have repeatedly proved equal to the task of suppressing the worst of the diseases—but the scientific knowledge of the maladies possessed by the faculty, not in this country only, but in all countries, is still too imperfect to ensure efficient control and to inspire hopes of prolonged immunity. It is not of foot and mouth disease alone that our knowledge is deficient, though that is the most conspicuous instance: swine fever, and louping-ill in sheep are prominent among the serious troubles that are understood only in a superficial sense and that cannot at present be prescribed for effectively.

The Central idea in the proposed project is so to improve scientific knowledge as to make these diseases amenable to remedial or, better still, to preventive treatment. Mr. Runciman has obtained from the Development Commissioners a promise of a grant sufficient to defray the cost of construction, equipment, and working of a veterinary research station on lines formulated by Mr. Stewart Stockman, the Chief Veterinary Officer of the Board. Mr. Stockman last summer visited the principal veterinary institutions on the Continent and attended the International Veterinary Congress at Lyons where he discussed the subject with representatives from different countries, and the results of his inquiries, together with his own personal experience in the building up of the research station in South Africa, are brought to bear in the scheme that, as Mr. Runciman stated, is at present being considered by a joint committee of scientific and practical experts.

If the establishment is constructed on the plans submitted to the Committee, it is believed that it will be the most complete of its kind in any country. Several of those on the Continent are adequate in their laboratory provisions, but are deficient in the arrangements for the housing, and especially for the isolation of ani-



mals. The details of the scheme have still to be adjusted, but the President of the Board of Agriculture is enthusiastic in its favour, and it is safe to say that the foundation has been laid of an undertaking that promises to be of the greatest value to the important growing business of stock raising.

#### Sir T. Elliott's Promotion.

In the House of Commons on Wednesday, December 18th, in reply to Mr. C. Bathurst (Wilton, Opp.),

Mr. RUNCIMAN (Dewsbury) said: Sir Thomas Elliott retains his position as Permanent Secretary of the Board of Agriculture until February next. The appointment of his successor will be made in due course. I would like to take this opportunity of saying how highly Sir Thomas Elliott's services to the Board have been appreciated. (Hear, hear). Throughout the 20 years he has been secretary he has devoted himself wholeheartedly to his duties, and the thoroughness of the Board's administration has been largely due to his ability. I acknowledge gratefully the value of his experience, judgment, and zeal, especially during the troubles and anxieties of the last six months, and I heartily congratulate him on his well-earned promotion in the public service. (Hear, hear).—*The Times*.

"The appointment of Sir Thomas Elliott to be Deputy Master of the Mint is," a correspondent writes, "hailed with enthusiasm by the supporters of Mr. Lloyd George's land policy. These gentlemen have always regarded Sir Thomas in his rôle of Permanent Under-Secretary of the Board of Agriculture as embodying the spirit of Conservatism in respect to modern land legislation, a very unfair criticism, but one which does him credit, since he was never willing to lend his support to wild-cat projects. In any case, his successor will be quite of a different stamp, and the Government will take care to nominate an administrator who is far more in sympathy with their own particular views.

"The difficulty, however, will be to find someone who has not only a knowledge of English land conditions but an appreciation of international transactions, for, nowadays, the Board of Agriculture works in foreign countries, and Sir Thomas, who is a good linguist, was frequently obliged to travel abroad, particularly to Paris and Rome. There is no doubt that many of the Liberals would like to put in a politician such as Mr. George Lambert, M.P., who does know agriculture, but whom, with a strange perversion, the Government has always installed at the Admiralty.

"Conservatives do not affect to disguise the significance of this transference of a leading public official, and are watching with a good deal of interest what the Government will now propose to do. There is no doubt the latter had their man ready before they moved Sir Thomas.—*The Daily Telegraph*.

#### Personal.

We regret to learn that Mr. JOHN BROWN, F.R.C.V.S., Invergordon, met with a rather serious accident the other day when about to operate on a mare at the farm of Ballintraid. The animal had been secured, and he was in the act of slackening one of the ropes before proceeding with the operation when she reared up and struck him on the face, laying him prostrate in the stall. He managed, however, to get out of an awkward situation. A nasty gash was made in Mr. Brown's face, one of his eyes was injured, and he was much bruised. He will be confined to his residence for some time. Mr. Brown is a skilful practitioner, has an extensive practice, and is often in request all over the northern counties.—*The Scottish Farmer*.

At an Examination at the Royal Sanitary Institute for Inspectors of Meat and Other Foods, held in London on Dec. 13th and 14th, 1912, 40 candidates presented themselves. Twenty-two were granted certificates, including Messrs. :—

FRANK GRANT BUXTON, M.R.C.V.S., Highgate.  
J. BISHOP YOUNG, F.R.C.V.S., Braintree.

#### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Dec. 13.

SPECIAL RESERVE OF OFFICERS.

ARMY VETERINARY CORPS.

J. Rae to be Lieut. (on probation). Dated Dec. 14.  
Dec. 17.

VOLUNTEER AND TERRITORIAL DECORATIONS.

The King has been graciously pleased to confer the Territorial Decoration upon the following Officers of the Territorial Force, who have been duly recommended for the same under the terms of the Royal Warrant, dated August 17th, 1908 :—

\* \* \* \*

ARMY VETERINARY CORPS.

Major D. M. Storrar.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Cadet F. J. Weir from the Royal Veterinary College of Ireland, O.T.C., to be Lieut. for service with the Royal Veterinary College of Ireland O.T.C. Dated Dec. 18.

#### OBITUARY.

WILSON.—On the 12th inst., after a short illness, Jane, the beloved wife of William Wilson, F.R.C.V.S., Berkhamsted, aged 77 years.

We regret to record the death of Mrs. Wilson, the wife of Mr. William Wilson, of Coleshill House, Berkhamsted. The deceased lady and her husband are well-known and highly respected inhabitants of the town of Berkhamsted, where for many years Mr. William Wilson, who is a Fellow of the Royal College of Veterinary Surgeons, has conducted a large practice, and latterly with his son, Capt. Wilson. Mr. and Mrs. Wilson have had four sons, one being now in India, and two daughters. Amongst the many institutions of the town with which Mr. Wilson is associated is the position of Chairman to the Town Hall and Markets Company, and the family have received many expressions of sympathy and regret at their bereavement.—*The Berkhamsted Gazette*.

#### Victoria Veterinary Benevolent Fund.

To the Members of the Veterinary Profession.

Gentlemen.—This is Christmas time.

Many of us will be happily meeting and entertaining our families and our friends. Many will be thinking how to make the festive season happy for themselves and others. Let me ask your indulgence for one minute to consider the claims of our Fund on your generosity.

There are members of our profession, there are the widows of late members of our profession, perhaps of an old college pal, or a neighbouring practitioner, who cannot, through being too poor, celebrate this happy time. Widows too poor to bring home their children to make a happy reunion.

We try to bring comfort and happiness in their homes. Will you help us to help them?

Please think, and think seriously.—Most sincerely yours,  
WM. SHIPLEY, Hon. Sec.



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1277.

DECEMBER 28, 1912

VOL. XXV.

## A RESEARCH INSTITUTION.

At the close of the year comes the news that the Board of Agriculture is drawing up a scheme for the establishment of a research institution for the investigation of animal diseases, and that the detailed proposals are shortly to be submitted to the Development Commissioners. Last week we printed an official intimation of this, together with some remarks from the agricultural correspondent of *The Times*, which, coming from so well-informed a source, may be taken as authoritative. It appears that the main lines of the scheme have primarily been drawn up by Mr. Stockman, after enquiries upon the Continent, and the exact details are now being adjusted by a committee before being finally referred to the Development Commissioners. Existing similar institutions have been compared, and their defects noted, and it seems very probable that ours, when completed, may be the best in the world.

Apparently the scheme is no longer a mere suggestion, but a settled project practically certain to be executed. It is an innovation in this country, and altogether a welcome one. Hitherto the research work upon animal disease here has been practically confined to the Board of Agriculture and the Veterinary Colleges. Some of that work has been very good; but it has been hampered by the fact that it has not been the sole function of the institutions at which it was carried on, and that it was done by men having many other calls upon their time and energies. More good could be done by an institution devoted solely to investigation, and staffed by veterinarians, biologists, and chemists engaged in that alone.

## TWO DESERVING FUNDS.

A special effort is being made just now to raise more money before the end of the year for two bodies—viz., the International Veterinary Congress and the Victoria Veterinary Benevolent Fund. Members who have not yet subscribed to these this year have just time before its termination to forward their cheques to the respective treasurers, and we trust that many will do so. One is a temporary fund and the other a permanent one; both alike should be supported by every member who can afford to subscribe to any object.

## COMPLIMENTS OF THE SEASON

This number will reach our readers almost midway between Christmas Day and the New Year.

We tender them our best wishes for both seasons—that they may have enjoyed a happy Christmas, and that a pleasant and prosperous New Year may be awaiting them all.

## FATAL CHRONIC NEPHRITIS IN A HORSE.

Rosseau records (*Journal de Méd. Vét. et de Zootechnie*) the case of a horse, twelve years old, which showed loss of appetite. The general condition was bad. The dung was passed in small, dry, glistening balls, upon the surface of some of which were sanguinolent streaks. The horse was submitted to the infirmary as suffering from enteritis.

Under the influence of laxative treatment and cooling diet (carrots) the appetite reappeared and the symptoms of enteritis abated; but the general condition became worse and worse.

The horse had a singular attitude; his four limbs were drawn together, and the sheath was oedematous. The sheath was then explored, a mass of old secretion which partially obstructed it was withdrawn, and immediately afterwards the region was washed with soap and water.

Examination of the chest revealed the existence of a little emphysema. Rectal exploration yielded no particular result.

Attention was then directed to the kidneys; and the urine was analysed. It was normal in composition, containing neither albumen nor sugar. The author nevertheless retained the idea of the existence of a characteristic nephritis.

The horse was then systematically treated with bicarbonate of soda and given a ration composed of from 2 to 3 kilogrammes (about 4.4 to 6.6 lbs.) of hay and from 10 to 12 kilogrammes (about 22 to 26½ lbs.) of carrots. The emaciation persisted, and even increased from day to day; the position of the limbs was always the same; and the oedema of the sheath remained stationary.

On account of the extreme and increasing emaciation, though there was neither cough, nor catarrh, nor adenitis, an injection of mallein was given. The result was negative so far as the question of glanders was concerned; but the condition of the animal suddenly became worse. Thirty-six hours after the injection the hind-quarters became paralysed and the horse fell in his stall; and, despite energetic treatment, he died the next day.

Post-mortem, the blood was black and uncoagulated. The liver and heart were diseased; there was a little pericarditis, and traces of old pleurisy and of pulmonary emphysema; but the principal lesions were encountered in the kidneys.

The renal capsules were easily stripped off; and some white spots were irregularly distributed in the cortical substance. The left kidney, upon its inferior aspect and near its anterior border, presented a deeply stamped cicatrix of an irregular X-like shape, due to an old infarct. Median section

showed that the cortical substance was striated radially, and appeared of a constitution analogous to that of the fleshy laminae of the foot. The medullary substance and the renal pelvis offered no feature of particular note. Except that the cicatrix was absent, the right kidney presented absolutely the same lesions as the left one. The suprarenal capsules were normal. The histological examination revealed a case of chronic nephritis.

The author ascribes this nephritis to a toxic-infectious origin. The horse had, in fact, five years previously, been affected by a severe pasteurellosis, from which he had never perfectly recovered.

The author attributes death to intoxication following upon the injection of mallein. The kidneys filtered badly, in consequence of the sclerosis of a certain number of Malpighian corpuscles; and the toxins, by accumulating in an already debilitated organism, had brought the animal towards death by degrees. The sudden aggravation of the symptoms and the fatal termination which followed the injection of mallein confirm the author in this idea.—(*Annales de Méd. Vét.*)

#### GENERALISED MELANO-SARCOMA IN THE DOG.

Petit, Douville, and Germain have reported (*Soc. Cent. de Méd. Vét. de Paris*) the following case of a black poodle, the age of which is not stated.

The history was that, five months before, two small smooth black warts, resembling small mulberries, had been noticed about the extremity of the tail. They were so small that the clipper almost completely excised them. The hæmorrhage was slight, but cicatrization was never accomplished, and two small granulations, reddish, and bleeding at the least contact, appeared. Treatment by tincture of iodine, collodion dressings, cauterisation with the red hot iron, etc., had not caused them to disappear.

When seen by the authors, the extremity of the tail emitted a fetid odour. It was invested by a fleshy envelope, blackish and suppurating, and insensitive to the touch. The ischial glands were hypertrophied, and soon afterwards proceeded to abscess formation. The general condition of the dog was unsatisfactory. Cachexia set in by degrees, and the animal died. The diagnosis of melano-sarcoma had been made precise during life by a histological examination of a fragment of the tumour.

Post-mortem, in addition to the lesions at the end of the tail, three small ulcerated nodules were found at the margin of the anus. On either side of the coccygeal vertebræ as far as the sacro-iliac joint a veritable neoplastic chain was found; and the sacro-coccygeal muscles were diffusely infiltrated.

The epiploon and the peritoneum were spotted with small granulations of a clear black colour.

The mesenteric glands were infiltrated with diffuse pigment.

Metastases were present in the liver. The intestines showed two lesions, one upon the duodenum and the other upon the colon, near the cæcum. One

kidney was affected by the lesion, and the suprarenal capsules were profoundly affected.

The lungs were crammed with melanomata of various degrees of development, and even the heart was not spared by the generalisation. The nervous system alone showed no lesions.—(*Annales de Méd. Vét.*)

W. R. C.

#### EXPERIMENTAL IMMUNISATION AGAINST TUBERCULOSIS IN CATTLE.

Weber and Fitze, after experimenting with sera from human source, conclude that the immunity conferred is but fleeting, and passes after a few months leaving the animal even more susceptible to accidental infection. During their experiments, however, they noted the following interesting case.

A heifer, eight months old, 180 kilos. inoculated intravenously with cgr. 0.05 human tubercle bacillus. The heifer did well, and a year later, Oct., 1904, was covered. While carrying the calf, between January and April, 1905, the cow received three subcutaneous injections of a similar nature and amount. On July, 1905, she gave birth to a strong calf and reared it. The calf died of pneumonia on Sept. 8th. 1905, and showed post-mortem a caseous mesenteric gland, but no other lesion. From the gland was cultivated bacillus tuberculosis, *human type*.

Seeing that the points of inoculation had healed perfectly, the mother's milk was suspected of being the vehicle of the disease to the calf, and guinea-pigs were inoculated with milk from all four teats, they became infected and produced bacilli of the *human type*.

On two subsequent occasions the test was repeated with similar results. Simultaneous tests with blood were negative. On March 21 and July 5 milk was taken from each teat and guinea were inoculated as per teat, only those inoculated with milk from the right hind teat became affected. This teat had atrophied, and had a hard nodule inside it. Three other guinea pigs inoculated from it gave positive results. The cow did not react to tuberculin.

On Dec. 28th, 1905, she was given a strange calf to suckle and kept it eight months, it sucked the diseased teat and when killed at ten months old was found to be tuberculous.

The cow was killed on the 4th June, 1907. There were no tubercular lesions in any of her organs, the right hind quarter had shrunk to a quarter its size and changed to connective tissue. The injection of human tubercle bacilli a year before conception had resulted in no bacilli being found six months later.

From numerous other experiments with bacilli from human, cold blooded animal, and semi-sterilised sources, the authors come to conclusion that the question of immunisation is far from settled as suggested by Behring, and that the effective serum has still to be sought.—*Rev. d'Hygiène*.

F. E. P.

## Royal College of Veterinary Surgeons.

### EXAMINATIONS IN GLASGOW.

At a meeting of the Board of Examiners held in Glasgow on Dec. 9th for the Written, and on Dec. 11th and 12th for the Oral and Practical Examinations, the following gentleman passed his Final Examination:—

Mr. P. J. Turner.

The following passed their Third Examination:—

Mr. Q. A. Stewart	Mr. E. Angler
W. Barr	

The following passed their First Examination

Mr. H. J. Hughes *	Mr. C. McPherson
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LIVERPOOL (Examined at Glasgow).

The following passed their Third Examination:—

Mr. M. W. Holland	Mr. R. L. Lewis *
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The following passed their First Examination:—

Mr. E. W. Hughes *	Mr. W. L. Marshall
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### EXAMINATIONS IN EDINBURGH.

At a meeting of the Board of Examiners held in Edinburgh on Dec. 9 for the Written, and on Dec. 11, 13, 14 for the Oral and Practical Examinations, the following gentlemen passed their Final Examination:—

Mr. J. N. Cooper	Mr. A. Q. Hall
W. Dalling	S. E. Holmes
R. L. Armour	C. Nicholson
F. J. L. Croudace	D. R. Williamson
R. E. Drennan	

The following passed their Third Examination:—

Mr. L. Anderson	Mr. E. Sewell
D. Starkey	G. Williamson

The following passed their Second Examination:—

Mr. R. E. Bond	Mr. W. J. Bambridge
R. J. Forrest	P. MacLaughlin
P. W. Walker	L. Littler

The following passed their First Examination:—

Mr. R. Beattie	Mr. J. G. E. Gallie
H. F. Downie	A. R. Kerr

### EXAMINATIONS IN LIVERPOOL.

At a meeting of the Board of Examiners held in Liverpool on December 9th for the Written, and on December 16th for the Oral and Practical Examination, the following gentlemen passed their Final Examination:—

Mr. V. A. Bartrum	Mr. A. L. Pollard
R. Isherwood *	J. W. Procter
A. D. Morgan	

Marked thus \* passed with Second Class Honours.

### THE CENTRAL VETERINARY SOCIETY.

A general meeting was held at 10 Red Lion Square, W.C., on Thursday, December 5th, Mr. J. W. McIntosh, President, in the chair. The following Fellows signed the attendance book: Messrs. R. J. Foreman, P. W. D. Smith, T. S. Price, Wm. Hunting, G. Gordon, J. F. Macdonald, S. H. Slocock, J. Willett, T. D. Jones, Prof. J. Macqueen, Prof. G. H. Wooldridge, G. H. Livesey, F. W. Willett, B. Gorton, G. Upton, E. L. Stroud, R. Bryden, R. Eaglesham, C. Cunningham, J. A. Gosling, F. O. Parsons, H. King, and Hugh A. MacCormack, and four visitors.

On the motion of Mr. J. Willett, seconded by Mr. T. S. Price, the minutes of the previous meeting were taken as read and confirmed.

#### CORRESPONDENCE.

The SECRETARY read a letter from Mr. F. W. Chamberlain regretting his inability to be present.

A letter from Mr. Toope of the South Eastern Veterinary Association.

A postcard and letter from Mr. Greatheed.

The SECRETARY said it would be remembered that a letter was read from Mr. Greatheed at the October meeting of the Society, when it was resolved that the letter should lie on the table.

Mr. SLOCOCK enquired if Mr. Greatheed was a member of the profession.

The SECRETARY replied in the negative.

On the motion of Mr. Slocock, seconded by Mr. Price, it was resolved that the letter should lie on the table.

The SECRETARY announced that Messrs. G. W. Bloxsome, J. Webb, and W. Urquhart had tendered their resignations of their Fellowships.

On the motion of Mr. Foreman, seconded by Mr. Jones, the resignations were accepted with regret.

The SECRETARY read communications from the Royal Sanitary Institute, asking the Society to send a delegate to Exeter in July next, and from the Tenth International Congress on Agriculture to be held in Belgium in July next.

#### MORBID SPECIMENS.

Mr. PRICE exhibited a calculus taken from a performing pony 12 hands high. The animal had been three times badly attacked with constipation and ultimately died. The calculus was of extraordinary shape; he had never previously seen one like it.

Mr. JONES exhibited a specimen of endocarditis. The subject was a young black mare. On auscultation the first sound of the heart had completely disappeared, and a well-marked bruit had taken its place. The peculiar feature was that although the right valve was affected, there was a complete absence of any jugular pulse, which led us to believe it was the left valve. There were five or six finger-like projections on the valve; and the semi-lunar valves and the right auricle were affected.

Prof. WOOLDRIDGE enquired if the animal had been slaughtered.

Mr. JONES replied that the mare had had double pneumonia in addition, and had ultimately died.

#### ELECTION OF FELLOWS.

Mr. J. BASIL BUXTON, M.R.C.V.S., Brockwell Hall, Herne Hill, S.E.; and Vet.-Major E. BARRY, F.R.C.V.S., 2nd Life Guards, were unanimously elected Fellows of the Society.

The following gentlemen were nominated:—

Mr. STEWART STOCKMAN, Board of Agriculture; Prof. E. BRAYLEY REYNOLDS, Royal Veterinary College; Mr. J. B. YOUNG, Braintree, Essex; and Mr. LINDSAY AUCHTERLONIE, 31 South Wharf Road, W.

## PRESIDENTIAL ADDRESS.

Mr. JOHN W. McINTOSH, M.R.C.V.S., F.R.S.E.

Gentlemen,—I am deeply sensible of the high and signal honour you have done me in electing me your President for this year. The honour has been unexpected and therefore all the more embarrassing on that account. I am somewhat anxious as to the responsibilities of the position, and I am afraid I shall roll about a little, in the seat which has been so easily, and so gracefully, filled by my predecessors. But as I am assured of your loyal support, and the aid of our excellent Secretary I shall be strengthened in my endeavour to uphold the traditions of the office unimpaired.

It is usual for your President to open the work of the session by offering some remarks on matters of professional interest and in the somewhat perilous task that I have set myself I find it difficult to make any addition to what has already been said, but I shall endeavour to hold your attention for a little on—what I shall describe as—"A few Professional Thoughts."

The true value of an Association of this kind is derived from the judicious combination of its intellectual and social sides. In the business of these societies, it is the bringing together of recent facts or ideas, and the friction of mind with mind, that is so useful in separating the real and substantial from the imaginary or accidental. Of course it would be too much to suppose that, coming from so many sources and from such differently constituted minds, its merits should always be equal or of the highest order. It cannot be expected of all who write, and all who speak, that one should say "he spoke because he had something to say, not because he wanted to say something." "Experience is by industry achieved, and perfected by the swift course of time."

It is in this spirit, I am sure, we begin our work to-night, and if we continue along these lines of conduct our association cunctates, and if, in the control of the affairs of our daily life, we always bear in mind that we belong to a noble profession and to a great Association, we may hope to see—useful as it may be now—an advance of all that constitutes the true education of the man of science.

These noble purposes cannot be achieved without self-sacrifice as well as the sacrifice of time; without a consideration of the views of others, as well as an assertion of one's own; without respectful regard to the feelings and positions of our colleagues, as well as a due estimation of those which we ourselves may occupy; without patience as well as work. But valuable as the work of this Association is in its professional scientific and ethical aspects, its social work is just as great, for nothing so tends to remove professional jealousy and suspicion amongst practitioners of the same profession, as constantly meeting each other in gatherings of this kind. Let us then unite in our efforts to maintain the honour, the consolidation and extension of our association and our profession in particular.

I think it is admitted that in the progress and development of recent years, the Empire has outgrown in many directions its old organisations. In no phase of life is this fact more apparent than in its relation to animals, and as our animals are an indispensable condition to this prosperity, each, by its share in contributing to so great a whole, becomes a humble but valuable asset of the Empire.

As the custodians of the animal—and to a large extent the material wealth of our country, we have every reason to believe—notwithstanding the advance made by motors and the now threatened extinction of the

milch cow—that as the resources in a country develop so also must the profession to which we belong.

There never was a time when there was more demand for the services of skilled veterinarians in all departments of public life than there is to-day, and we must be ready to demonstrate to the world our fitness for the repose in us of those privileges we seek, and which by professional inheritance are ours. It can be claimed without any hesitation that veterinary science has been of inestimable benefit to the community. In how far the wealth of the country has been, and is being conserved, cannot be definitely computed, but I have no hesitation in saying that had the profession been taken a little more into account during the past—instead of trying to do without it—the community might have been saved a large annual loss.

For a very long time it has been felt that preventive medicine had a great future before it—in the immediate future even more than in the present, and it is perfectly certain that on the veterinary profession will devolve a large share of the work of that organisation.

To render our profession, of the highest service, not only to the individual but to the state, in view of the fresh fields of activity, means that the provision made for veterinary education in this country must expand. The nation has not yet recognised the debt that was owing to the profession, and it is most galling to our national pride to think that other departments of education have been made matters of national concern, whilst the provision made for veterinary teaching and research in Great Britain has been left pretty much to private enterprise and generous benefactors.

One can admire and understand the patriotism which incites such gifts, but one finds a difficulty in understanding how it is that a profession such as ours, with its noble traditions, fails to appeal to those individuals who are in a position to do their country and education a service, and enroll their names in that imperishable record of benefactors whose memories we honour and extol.

Surely veterinary education in this country has established a claim on the public purse. We all of us realise that the provision which has to be made for a modern scientific veterinary education is of necessity a costly undertaking, involving the building and upkeep of laboratories, and the adequate endowment of professorial chairs, lectureships and research work. For many years past the amount of work done by our Professors and lecturers, for a totally inadequate remuneration, is well recognised and much deplored by all who are interested in the teaching of veterinary science. There was no question that the position in Great Britain at the present day, was second rate as compared with continental schools, and it became the duty of every member of the profession to do his utmost to remove that reproach as speedily as possible. The State ought to foster the progress of veterinary education and veterinary research and for that purpose ample funds should be provided.

It was a happy sign of the times that an enquiry was being made at present with regard to the wisdom of creating a "Veterinary State Service" and as to the best means of selecting and training those men. I think we all are agreed as to the value of a service of this kind, and cordially welcome any State effort that may be made to more effectively control the contagious diseases of animals. For work of this kind you must have a thoroughly qualified veterinary surgeon—a man able to recognise promptly contagious diseases of animals, and he should also be acquainted with the scientific points that are arrived at in the laboratory and by way of experimentation. We do not want any more of those men who carry with them a telescope in the one pocket and a bundle of blue papers in the other; who ignore or

treat disdainfully that which they do not know; who fire off a whole lot of enquiries, give instructions, and are gone; producing a marvellous impression of sagacity and experience on the faithful few, but on the thinking and feeling portion of the community leaving no other impression than that they are most delusive institutions.

I should be sorry to take one farthing from the annual value of those men, whose counsel and experience is beyond all pecuniary representation, but it may be suggested that their rate of remuneration should be increased so that they should do less work, but do it better and have more time for reflection.

I am just afraid, however, that there may be a tendency to run too much into specialism—and while I do not wish to lessen the value of specialism, provided it is dug wide enough and deep enough, I do think that the practical man who knows his bacteriology, comparative pathology, and police, who has a broad knowledge of agriculture; possesses administrative capability, and above all a broadened mind, is the man who is calculated to be of the highest service to the State.

I do not for one moment say that every member of the profession is thoroughly efficient to undertake such duties, but I do say that men with the qualifications I suggest are the most fitted men to be moulded into such officers.

It is impossible to deny the fact that if greater practical knowledge of animal diseases entered into the administrative powers inestimable advantages would be the natural result, and I hope and believe that the outcome of this enquiry will result in conclusions that are logical and reasonable.

Whatever our views may be with regard to the provisions of the Veterinary Surgeons' Amendment Bill, we are all, I believe, unanimous in the desire to see the financial position of our College strengthened. I think it a profound misfortune that the rank and file of the profession had not been taken a little more into account when the Bill was originally drafted. The Council was too optimistic and did not take into sufficient consideration the influences which ought to have been consulted. If this were done, notwithstanding the great diversity of opinion which then existed, I believe it was possible to evoke order and harmony out of chaos and disorder. It would be singularly unfortunate if a movement which involves the interest of so large a body were concluded without extensive discussion. It only fair that all proposed legislation should be criticised. If it can not stand criticism there is something wrong—it is not worth having. With every sentiment of respect and admiration for our members of Council, and for the good work they have done, and are now doing, notwithstanding strongly expressed views to the contrary, I claim, as a member of the profession, and as a citizen of a great community, a perfect right to advocate reforms and to call in question the actions and doings of those who represent us. It is our duty to do so, and to consider details calmly, fairly, and yet freely and fearlessly. By so doing we shall show we are earnest and sincere in our desire for progress.

I do not think there would be any advantage in my dwelling on this subject any longer, but I may be permitted to say, as one who was strongly opposed to the passing of this Bill in its original form—and I make no apology for that opposition, as it was that of a true heart and one aim—that that opposition has been overcome, and I am glad to be able to give the "Amended Amendment Bill" my whole hearted support and influence.

We have no desire to block the path of humane progress by withholding from our animals every right to legal protection, but surely the existing legislation is

sufficiently wide in its terms—at least so far as this country is concerned—to satisfy the requirements of civilisation and justice. It seems to me that an attempt is being made in the Anaesthetics Bill to usurp the rights and privileges of the veterinary profession. Humanity is one of the foundation stones of our training, and to treat with indifference the manifold sufferings of our animals would be to drag down our proud morality to the level of prehistoric barbarism. We welcome legislation thoughtfully considered and applied, but I am sorry to say, so far as it relates to the protection of our animals, its methods of administration and enforcement are at present woefully defective, and unless more carefully controlled will develop into oppression, and even blackmail and extortion may sometimes follow. The Bill has been brought forward with as little publicity as possible, and it is to be hoped it will meet with organised opposition, strong and active enough to defeat it.

It is my belief that the freshly reconstructed "National" cannot fail under the new democratic organisation to become a powerful factor in advancing the interests of our profession. Every member of a division has a voice in the management of his division, and through that division he is directly represented in the representative body which determines the policy of the Association—in this way you are in constant touch with the very heart and pulse of the profession. Membership of a particular Society carries with it all the rights and privileges of the Association, and it is to be hoped that every member of the profession will extend to it his sympathy and co-operation.

Advantages from combined action are incalculable and with this consummation will be combined the elements of union, which is strength, and the means of adding to that harmony and concord which ought ever to exist among us as a body.

To Dr. Bradley and Prof. Gofton our best thanks are due for the time and energy they have devoted to the work, and for the success which has crowned their efforts.

It is a compliment to Great Britain that the Jubilee of the International Veterinary Congresses is to be held in London, and it is the duty of every member of the profession to extend to it his loyal support and influence.

This Congress is of great importance to the whole profession; every civilised country will be represented, and the success of it should be made certain. That it will lack nothing in dignity and usefulness we are assured, as we have at the head of affairs Sir John M'Fadyean and a very large and able committee, but like all other organisations money is required in carrying this Conference to a successful issue. At present the funds are very far short of what is required and subscriptions are urgently needed. I would like to direct my appeal to-night to give financial support as well as moral support to this undertaking, even small subscriptions will be practical evidence of your interest, and will make the task of the officials easier and pleasanter.

Gentlemen, in conclusion I thank you for the patient hearing you have given me, and let me again remind you of the importance of attendance at our meetings, for according to the zeal of each individual will be the success of our Association and the benefit to be derived from it. On you, too, rests a share in making our evenings interesting and profitable, and if we combine in our efforts we may hope to at least maintain the reputation of the scientific stock from which we have sprung.

## R.S.I. CONGRESS. YORK.

## DELEGATE'S REPORT.—MR. R. J. FOREMAN.

Mr. President and Gentlemen,—As your delegate to the Royal Sanitary Institute Congress at York, I must first of all, thank you for appointing me, and thus giving me the opportunity of visiting a delightfully quaint and hospitable old city.

I need not take up your time in going over the opening speeches of Congress, or the papers discussed, as I should require the space of a large volume in which to do so. Nor need I describe the many excursions, garden parties and other functions undertaken by the more energetic members of Congress, despite the unfavourable weather; but I may mention that the wearing of the Congress badge made the wearer free of practically all the clubs, trams, golf courses, tennis clubs and places of interest in and about York; so that one could easily fill in spare time (if any).

The Congress dinner was a very successful function, and if there were any "Health Cranks" there they did not give themselves away. I was rather expecting to see some diners feasting on "nuts, fruit and water" but no! All the guests I saw, were going through a very good menu as if they enjoyed it. Even the juice of the grape, the products of the still, and the fragrant weed were in evidence; the latter being alluded to by His Grace the Archbishop of York, rather wittily, when giving permission to smoke, after the loyal toasts. He made a capital chairman and made a clever speech.

Sir Chas. Cameron responded to the toast of "The Visitors" in a very enjoyable and comical speech, causing much laughter with his good humoured banter.

Coming to the part of the work pertaining to the veterinary section of Congress: This section seemed to be stuck in as a kind of an afterthought, being allotted three hours on the last day of the Congress—a Saturday before a Monday bank holiday.

This naturally had a bad effect on the attendance; one gentleman stated that he received about 50 expressions of regret from members unable to attend on account of the inconvenient time of meeting.

Prof. Dewar presided, and in his address mentioned that all considerations of veterinary surgery, hygiene, etc., eventually bore to the improvement of the health, and preservation of the lives of the community at large. He regretted that the Government of England for about 20 years, had looked on without doing anything to stop this scourge of tuberculosis slaying its thousands. He sincerely hoped they would soon begin to move in the matter. He thought it better to attack the disease at its source, viz., the breeding farms, than to only pick out the "wasters" and "clinically affected udder" cases. He strongly advocated breeding from "sound" bovines only.

He then explained that in justice to the essayists he would have to limit the time of each speaker. We found the allotted periods too short, and much more would have been said under more favourable circumstances.

I will give the gist (as I thought) of the discussions. I expect a full report will appear in the R. S. Institute Journal if anyone wishes to go more deeply into the matter.

Mr. Percy Simpson, in his paper on "The Eradication of Tuberculous Milch Cow," alluded to the great difficulty which might result from any very drastic action, such as immediate slaughter of all affected animals. Milk would probably go to such a high price that it would mean starvation for large numbers of children. He gave sound advice as to the methods by which this could be avoided and the wished for object arrived at.

One speaker advocated testing by veterinary surgeons;

the seizure and slaughter of clinically affected animals with compensation to half value.

Another held that as compensation was paid in cases of slaughter of animals affected with disease not communicable to man, why should it not be paid in the terrible one of tuberculosis. He advocated the branding of all reactors.

Another speaker said that: Mr. Simpson's idea of monthly inspections, was too frequent; and had a good grumble at the veterinary section of Congress being pushed into a corner. He suggested that the National Veterinary Society should approach the R. S. Institute and try and get a conference simultaneously with medical officers and sanitary engineers.

Another advocated more frequent inspections than twice a year, and told us of a cow (passed sound when purchased) which dried off and was sold. When slaughtered was found to be badly affected with tuberculosis and condemned. The vendors refunded the purchase money, but he thought that was a case where the government ought to give compensation, as due care was taken on both sides.

Another said that in one district 300 milch cows were examined; two proved definite and three indefinite cases of tuberculosis. The five were at once sold out of the district, which he considers very wrong. He thought that "Branding" would help to stop that sort of thing.

Another speaker brought forward a proposition that "sanatoria" in connection with the human ones should be formed where reactors, not clinically affected, might be sent or used for their milk, or as meat: all clinically affected cases to be slaughtered and cremated.

Others spoke in favour of competent inspection and the working together of the medical and veterinary officers, and again, that mammary tuberculosis was hardly worth noticing in comparison to the contamination of milk from the filthy byres and unclean attendants, many of whom were suffering from tuberculous lesions.

A medical man said that owners would not move in the matter until the fact was brought home to them of the enormous loss in stock they suffered through the disease. At present insurance and compensation prevent the loss being felt sufficiently. Government ought to make the milk and meat from affected animals a total loss to the owners. Then they would move in the matter!

Another speaker was condemning most heartily the idea of sanatoria, when the time limit was reached, and the Chairman applied the closure.

Mr. Simpson replied that the tuberculin test if fallacious at all might be so in very advanced stages of tuberculosis, or in cases that had been tested a number of times. He did not agree with the idea of sanatoria, didn't like the principle of feeding tuberculous patients on milk and meat from tuberculous cattle.

A resolution was passed calling upon the Government to call a conference of Public bodies, Insurance Companies, Cowkeepers, etc., to discuss ways and means of dealing with the question.

A very interesting paper on Foot-and-mouth disease by Mr. Collins, Chairman of the City of London Cattle Markets Committee, did not give rise to much discussion. He had treated the subject in a very able manner, and all present seemed to agree with him. He thought the market ought to be opened to the Argentine trade; there had never been a case of foot-and-mouth traced as having come from the market. Through that trade being closed, there was a loss of £20,000 per annum. Canada, a disease-free country, was not allowed to send live cattle into England; but Ireland, an infected country, was. He left us to guess the reason why.

A paper on Milk and its relation to disease, by Mr. Buxton, M.R.C.V.S., was next discussed at short length.

The Chairman did not think a tuberculous cow, clinically free, was much to be feared as a producer of milk. He illustrated this by giving us the result of an experiment on 60 calves in contact with their clinically free, reacting mothers. When 12 months old they were tested, and out of the 60 only one calf reacted to Tuberculin.

The danger of infection of milk by human beings was again dwelt upon; one speaker telling of a family of milkers, some of whom were suffering from open tuberculous sores, who went out, early morning, direct from their beds without the slightest attempt at washing. The details were not nice, and after another speaker had drawn attention to the farce of sterilised milk bottles, which are filled up time after time on dusty roads, one felt much inclined to swear off milk altogether.

We were reminded that milk from anthrax cases does not contain bacilli during life.

Mr. Holburn, in the absence of Mr. Buxton, replied that milkers could infect both teat and milk. Sanitary inspectors should inspect premises; medical officers the milkers, and the veterinary inspector the cattle.

A short paper on "The Notification of Death in the Lower Domesticated Animals," by Mr. Archer, M.R.C.V.S., raised some discussion, and one speaker ventured the opinion that Mr. Archer's district was rather behind the times; and, again, what would he (Mr. Archer) do about those cases in which the animal was killed "to save its life"?

Mr. Archer, replying, said that his district might be a bit behind the times in some things, for instance they had no inspector under the Meat or Contagious Diseases Acts, but were not behind in others. He advocated that each veterinary surgeon should act as inspector in his own district.

The time, allotted to the papers, had now expired and after a resolution, "That the Board of Agriculture be asked to reintroduce the Act of 1909" (viz., the compensation *re* tuberculosis from State funds) had been passed, the proceedings terminated with the usual votes of thanks, and a rush for trains.

I may add that the resolutions passed at our meeting were not worth the trouble of writing them down, as we were unable to conform to the rules, as to time of sending to the committee, etc., through no fault of ours.

R. J. FOREMAN.

December 5th.

Mr. WILLETT said he had much pleasure in proposing a vote of thanks to Mr. Foreman for the trouble he had taken in writing his report and for acting as the Society's delegate. There was one matter he desired to refer to. Year after year it was found that with regard to any resolution that they as a profession arrived at at the end of their debate, the Secretary of the R.S.I. informed them it was too late to be embodied in the report, or discussed. He (Mr. Willett) therefore considered it was a waste of time and money to send a delegate to the congress, unless the Congress altered the day set aside for the discussion of veterinary subjects. He thought the Council of the N.V.A. should obtain the opinions of the divisions on the matter and take steps.

Prof. WOOLDRIDGE, in seconding the vote of thanks, strongly supported Mr. Willett in principle, but thought the matter need not be necessarily referred to the N.V.A. The R.S.I. received the Society's subscription in order that it might send a delegate, and he thought it would not be out of place if the Secretary sent a notification that the Society might be constrained to withdraw its support of the R.S.I. unless a better opportunity were given for discussion by the veterinary section of the Congress. He would like to ask if he

would be in order in proposing a resolution on the subject.

The PRESIDENT said the matter would come up later when the Congress asked for the subscription.

Prof. WOOLDRIDGE said when that occurred the dates would have been fixed. If any action were to be taken in the matter it must be taken before the dates were fixed.

The SECRETARY pointed out the dates were already fixed for the coming year—July.

Mr. WILLETT suggested that the matter should be put upon the agenda for the next meeting of the Society.

#### CIRCULAR LETTER FROM THE SOUTH EASTERN VETERINARY MEDICAL ASSOCIATION *re* FEES PAID BY INSURANCE COMPANIES.

The PRESIDENT said he certainly thought the fees allowed by Insurance Companies for inspection of animals proposed for insurance were ridiculous.

Mr. PRICE asked what the proposed fees suggested by the South Eastern Society were.

The PRESIDENT read the proposed scale of fees as follows:—Horses under the value of £20, 5/-; horses valued from £20 to £35, 7/6; from £35 to £50, 10/6; from £50 to £75, 15/-; and if valued from £75 upwards, 21/-.

Cattle per head of three animals, 5/- each; after the first three, 2/6.

Post-mortem examination and report a guinea.

Special report on accident, health, sickness, or death, 10/6.

For visits to owners' establishment, mileage at the rate of 1/- per mile (one way) to be charged in addition to the above fees.

Prof. WOOLDRIDGE said he thought the present scale of remuneration was very ridiculous and it was about time some alteration was made in the fees paid by Insurance Companies to practitioners for examining animals. The difference in the proportion of the premium which was paid to agents of the various societies compared with that paid to veterinary surgeons acting professionally for the societies was enormous. He believed the agents were paid at about 12½ per cent. of the premiums, and veterinary surgeons at about 2½ per cent. of the premium. Therefore a man who performed nothing but purely clerical work received five times as much as the professional man, who probably had to go some miles to perform his duty. He thought there ought to be some concerted action on the part of the profession against working at such absurdly low fees. Probably there were some members present who had more accurate information, and if they would give some idea as to the fees they had received for examining animals for Insurance Companies, the Society would be in a better position to discuss the matter.

Mr. SLOCOCK formally proposed "That in the opinion of this Society the fees offered by the Insurance Companies for the examination of animals proposed for insurance are very inadequate." He thought the wording of the resolution was sufficient, but personally he had a great deal stronger view on the question. He would like to add to the resolution that any member of the profession who undertook such duties for such fees ought to be severely censured; in fact, he thought the man was not fit to be numbered amongst the members of the profession. He thought no self-respecting man should examine a horse, report fully on the diseases of the horse, the surroundings of the horse, the nature of the work, the food, the stable, and so on for a small sum of about 2/6. It had been argued by some that the work was done at the convenience of the veterinary surgeons, but he would ask if any veterinary surgeon would at his convenience undertake the examina-



tion of a horse for soundness for a private client for 2/6? With regard to the point raised by Prof. Wooldridge—that the insurance agent was probably very much overpaid as compared with the veterinary surgeon, he Mr. Slocock) did not think the agent was overpaid, but that the veterinary surgeon was underpaid. It had occurred to him that if the premium could not be raised sufficiently to allow the veterinary surgeons to be paid a suitable fee, animals should be taken for insurance without veterinary examination at all. He thought the members of the veterinary profession would be in a much more dignified position by allowing the Insurance Companies to take the risk on the assurance of the insurer than to put themselves into the degraded position of accepting a sum—he could hardly call it a fee—of about 2/- or 3/- for professional services.

Mr. UPRON remarked that it had been stated it was beneath the dignity of members of the profession to take agency fees, but personally he always took them with his professional fees, and the lowest he accepted for the two together for insurance came to 5/6. Sometimes at a special rate for a quantity of horses to be insured he drew a fee of two guineas. Therefore no absolute scale could be drawn. In one case the veterinary surgeon was fairly well recompensed, and in another case he got but very little. One gentleman had said to him that he ought not to take the agency fee, but he knew that solicitors were agents for fire and life insurance, so he did not think it beneath his dignity to do the same. The Board of Agriculture had a scale of fees for examination under which they paid 7/6 for each mare, and this he thought was quite low enough in a single case. He thought in some cases the veterinary surgeon was fairly well remunerated. It was where a man went to examine a single case and only received 5/3 or 2/6 that the trouble arose. One must get at the *quid pro quo*. If the insurance fee were too high, the owner would not insure. There was one advantage it gave, and that was on the point of unqualified men. There were several unqualified men in his district, but he had to say that the insurance companies were very strict in this matter. He therefore was called upon to examine the animal, and when they died to make a post-mortem. In this respect he felt very fairly treated. He held the only thing which would give the veterinary profession a *locus standi* in this country was a national insurance of animals controlled by Government.

Mr. F. E. WILLETT seconded Mr. Slocock's proposition.

Prof. WOOLDRIDGE enquired if Mr. Slocock would add to his resolution that the Central Society supported the South Eastern Association in their endeavour to get the fees raised.

Mr. SLOCOCK said he would certainly agree to that.

The PRESIDENT said it had been proposed: "That in the opinion of this Society the fees offered by the Insurance Companies for the examination of animals proposed for insurance were very inadequate, and that this Society supports the South Eastern Society in their endeavour to raise the scale of fees."

The resolution was then put and carried unanimously.

Prof. MACQUEEN proposed a hearty vote of thanks to the President for his excellent address. It was a valuable paper, and well worthy of the members' perusal at their leisure.

Mr. PRICE seconded the motion which was carried with acclamation.

HUGH A. MACCORMACK, Hon. Sec.

"What is a vegetarian?" asked little Tommy of his cynical uncle. "A vegetarian, my boy, is a man who has forgotten that all flesh is as grass."

## SOUTHERN COUNTIES VETERINARY SOCIETY.

A special meeting was held at the Royal College of Veterinary Surgeons, Red Lion Square, W.C., on Wednesday the 11th December, when the following members signed the attendance book:—Prof. G. H. Wooldridge, London; Messrs. A. H. Archer, Southsea; E. Whitley Baker, Wimborne; G. W. Bloxsome, Hove; W. Caudwell, Chertsey; W. A. DellaGana, Southampton; Harold Leeney, Pilton; G. H. Livesey, Hove; F. G. Samson, Mitcham; H. Smith, Worthing; Wm. Shipley, Great Yarmouth; P. J. Simpson, Maidenhead; and J. Alex. Todd, Worthing (Hon. Sec.), with the following visitors: Messrs. G. A. Banham, Cambridge; J. Crowhurst, Canterbury; F. L. Gooch, Stamford; and Theo. C. Toope, Dover.

The HON. SEC. announced that the President, Mr. W. Hunting, could not arrive back from Dublin in time to preside that day, adding that according to the rules, in the absence of the President, one of the vice-presidents ought to preside.

Mr. DELLAGAN proposed, and Prof. Wooldridge seconded that Mr. G. H. Livesey take the chair, and this was agreed to.

On the proposition of Prof. WOOLDRIDGE, seconded by Mr. Archer, the minutes of the last meeting as published in *The Veterinary Record* were taken as read and confirmed.

The HON. SEC. announced the receipt of apologies at inability to attend from Prof. Hobday. Messrs. R. Burt, W. Burt, A. L. Butters, W. Coveney, W. A. Collins, T. A. B. Cocksedge, W. Hunting, J. B. Martin, F. Marks, C. Pack, E. M. Perry, H. Redford, R. Roberts, C. Roberts, W. K. Stuart, S. H. Slocock, C. H. Spurgeon, and F. T. Walder.

## CORRESPONDENCE.

The SEC. read a letter which he had received from the Editor of *The Veterinary News* respecting the supplying of reports of the Society's proceedings, together with a copy of a reply which he had addressed to that paper, and on the proposition of Mr. Whitley Baker, seconded by Mr. Bloxsome, Mr. Todd's action was unanimously endorsed.

A letter from Mr. A. L. Butters who wrote that his health had not been good for some time past, and that as there was no prospect of his being able to attend any meetings in future he felt he ought to resign his membership. It was with regret that he took this step, but circumstances made it inevitable.

Mr. BAKER did not know if there was any other reason than inability to attend their meetings, but if he had not he thought they might possibly induce him to retain his membership. Personally he felt that inability to attend the meetings alone ought not to be a very strong reason for resigning one's membership of a Society which did a lot of good for the profession.

Mr. Baker proposed and Mr. Archer seconded that Mr. Butters be asked to reconsider his decision, and the proposition was at once agreed to.

A letter from Mr. Theo. C. Toope, the hon. sec. of the South Eastern Veterinary Association, which stated that the vote of thanks passed by his Society to those who had assisted them with information *re* Inspectors' fees especially supplied to their neighbours the Southern and the Western Counties' Societies and that they would be glad to learn they had been successful in getting an improved scale of fees allowed by the Kent County Council. Also that his Society were considering another matter which was perhaps more important from the general point of view—the question of the fees paid by the Insurance Companies.



The CHAIRMAN suggested that this latter matter might be discussed later, after they had Mr. DellaGana's paper on the same subject.

It was also decided on the suggestion of Prof. Wooldrige that both the reading of Mr. DellaGana's paper and the discussion should be postponed till later in the afternoon, in order that those members of the profession who were attending a committee meeting of the National in the same building might be able to join them.

A letter from the Royal Sanitary Institute inviting the Society to appoint delegates to next year's Congress at Exeter.

On the proposition of Mr. DellaGana, seconded by Mr. Simpson, this was deferred till the annual meeting.

Mr. DUNCAN C. CAMPBELL, of Beaulieu, was proposed by Mr. DellaGana and seconded by Mr. Baker, for election at the next meeting.

On the proposition of Mr. Archer, seconded by Mr. Baker, it was decided to hold the annual meeting in London on the last Wednesday in March, and that it should be followed by a dinner at the Holborn Restaurant, at which the retiring President should be entertained as the guest of the Society.

#### TRAVELLING EXPENSES OF LOCAL INSPECTORS.

Mr. E. WHITLEY BAKER brought forward the question of the allowances made by the Board of Agriculture for the travelling expenses of the local veterinary inspectors. He did not know whether it had occurred to other members, but it seemed to him that the amounts paid for motors was totally inadequate. Petrol was now about 1/7 a gallon, and, unlike the medical profession, veterinary surgeons were not allowed any rebate. For a two-seated car the allowance was 4d. a mile, and for four seats or more 6d. a mile. The allowance if one used a horse and trap was also 6d. a mile, and he would leave it to them to say which was the more costly.

Mr. LEENEY : it is a direct encouragement for the use of horse, I should say.

Mr. BAKER continuing, remarked that he was with him there, but it was the inequality which he complained of. There was also another little absurdity about these payments of the Board of Agriculture which he might call attention to. A veterinary surgeon who used his own motor bicycle, which could be run at about a quarter of the cost of a motor car, was allowed 3d. a mile, but if one hired a motor cycle for the day he was allowed to charge 4d.—the same as if he had a motor car.

Mr. BLOXSOME humourously suggested that they might get over the difficulty with regard to the number of seats in a car by putting up two additional seats for the day and thus making the car a four-seated one.

The CHAIRMAN : Would you like to move a resolution, Mr. Baker?

Mr. BAKER : I don't know that I want to do that, but it certainly seemed to be that this was a subject which might be ventilated to advantage. So far as the Central body was concerned veterinary surgeons appeared to be worse off now than they were in years gone by, before motors had been thought of.

Mr. DELLA GANA : And the time will come when you will find they won't want you at all. (Laughter).

Mr. BAKER : And thanks to Lloyd George and the Insurance Act I shall probably not want them either.

Mr. LEENEY : Why not sell the car to your wife and then hire it back from her. You would not lose anything then except the penny stamp. (Laughter).

Mr. BAKER : The remarkable thing about these allowances is this : the Board of Agriculture, in its great anxiety for the interests of the British public, tell us that if by using a motor car or other means of progression that will be less expensive we ought to do so.

Mr. CAUDWELL believed that before motors came on the scene there used to be a road allowance of 6d. per

mile each way, but that if one went on foot or rode his own bicycle he got nothing.

Mr. BAKER remarked that the last observation recalled something that occurred to himself many years ago. According to the scale of charges which were then set out on what was known as the "white form," a veterinary surgeon using his own conveyance was allowed 6d. per mile, and this went on for some time until one day he got a request from the Board asking what form of conveyance he used. He, feeling somewhat annoyed at such a question, hurriedly replied by stating that he simply used his cycle, with the result that he had an intimation from the Board to the effect that a veterinary surgeon using his own cycle was only allowed a penny a mile. He wrote back pointing out that the Board's own printed form read a veterinary surgeon using his own conveyance, etc., but it was of no use. One of their friends the lay inspectors came down, and it was hinted to him that if he persisted in his claim the Board would probably cease to employ him. Soon after that they had fresh forms come down with an amended scale of allowances, and, according to these, one was only permitted to make a charge of a penny a mile if one used his own bicycle.

Mr. CAUDWELL thought that all veterinary inspectors should be allowed 6d. a mile each way for road mileage, and that they should be permitted to select their own means of locomotion.

Mr. ARCHER remarked that the Board of Agriculture was evidently run on the same principle as all the other Government departments. When he had the Army work for the Portsmouth area he used to get no allowance at all for travelling under three miles. He was paid a halfpenny a horse per day, and he was also held responsible for the safe custody of the instruments in the regimental pharmacy.

Mr. BLOXSOME : The halfpenny does not include medicines of course.

Mr. ARCHER : No, it is not quite so bad as that.

Mr. CAUDWELL suggested that they should pass a resolution requesting the Board of Agriculture to make a travelling allowance to their veterinary inspectors of 6d. per mile each way by road, the practitioners to choose their own means of locomotion.

Mr. LEENEY seconded this, and on being put to the vote it was unanimously agreed to.

#### SPECIMENS AND CASES.

Mr. CAUDWELL submitted the knee bones of a vanner which had been in collision with a motor car at some cross roads. There was not the slightest scratch on the injured knee, but there was a very serious fracture in the lower row of the knee bones, and on making a post mortem he found these bones smashed to pieces.

Mr. ARCHER mentioned a case of abnormality in a horse's tongue which he thought was unique in its way. The animal was a three-year-old Shire mare, which had gone off its feed and was wasting and getting very weak. It had only been broken in for a few weeks, and previous to this had been out to grass. Since it had been broken in it had been put on the ordinary dry food, and it was noticed that whenever it was given any water it generally had sore throat. When he was called in to see the mare there was apparently nothing the matter with her, except that she was in poor condition. They tried her with water, but instead of drinking it in the ordinary way she snapped at it like a dog, and when she got it in her mouth made a tremendous fuss in trying to swallow it. On trying her with ordinary hay and corn he found she ate that without difficulty, but when they tried her with water again he found she did exactly the same, and an examination of the mouth revealed the fact that the animal had a deformed tongue. It was so short he could not draw it from the mouth, and it was also deformed at the back. He should think probably

that the muscles of the larynx were also affected a little. The reason the loss of appetite was not noticed when the animal was out to grass was probably due to the fact that she would get more moisture with her food then, and he advised the owner to always leave some water near her, and also to moisten her food as much as possible.

Replying to a question by the Chairman, Mr. Archer said he did not find any disease about the tongue; it was merely a malformation.

Mr. SAMSON mentioned three cases of excessive weakness, loss of appetite, and extraordinary high temperature in horses which had subsequently recovered.

#### TREATMENT OF FRACTURE OF THE RADIUS IN DOGS.

The CHAIRMAN initiated a most interesting discussion by inviting the experience of the members in their methods of treating fracture of the radius in dogs, and described a plan which he himself was now adopting. He had tried various kinds of splints with the idea of getting the limb straight afterwards, but in every case in which there had been only a fracture of the radius and not a fracture of both bones there had invariably been a slight dip, whereas in cases where both bones were broken one generally got a good mend. He had consequently now come to the conclusion that where it was only a simple fracture of the radius the best thing to do was to put on no stiff bandage at all, but merely to apply cold water dressings to reduce the swelling. He had had three cases in which he had followed this plan in which he had had a distinct fibrous union in a week, and practically a good joint in three weeks, and in one case, which was now eight or nine months old, he did not believe they would ever know the bone had been broken.

Mr. DELLA GANA asked Mr. Livesey how he satisfied his clients with such a treatment.

The CHAIRMAN replied that he took up the attitude that if they had not got sufficient confidence to trust to him they might take their patients elsewhere.

The CHAIRMAN, in a few remarks, extended a warm welcome to the visitors on behalf of the Society.

#### VETERINARY SURGEONS AND INSURANCE COMPANIES.

By W. A. DELLA GANA, F.R.C.V.S., Southampton.

Mr. President and Gentlemen,—Through personal indisposition, I greatly regret that I was unable to bring this subject before you for discussion at the last meeting of this Society, held at Salisbury in September. Consequently I now find that I have, to a great extent, been anticipated by the veterinary press and several speakers at other Society meetings. However, I hope that the few remarks which I am about to offer will suffice to raise a healthy discussion upon what I may seasonably claim to be one of the greatest iniquities which our profession has hitherto been compelled to tolerate—to make use of a vulgarism, the sweating of veterinary surgeons by insurance companies.

There are few of us engaged in private practice who are not from time to time called upon to make examinations of live stock for the purpose of insurance. Having carefully looked through the various tariffs of several well known live stock insurance companies I find that the fees allowed to us for examination, and a full and conscientious report, (as requested in the paragraph under which we place our signatures—a declaration to the effect that the information we give is given to the best of our knowledge and belief) are, by taking the average value of a horse at £30, and that of a cow at £20—an average of £25 per head, at present just under one-half per cent. of the value of the animal, not forgetting that we are expected to accept even less than

this for quantity, in proportion to the number of animals examined at the same time.

I will mention a few cases from personal experience. I have been asked to examine five horses valued at £190, and 19 dairy cows valued at £234, the inclusive fee for examination and report was £1 17s. 6d., which gives just over half per cent. of the value of the animals—5-11ths to be exact—as the fee allowed.

Another case, 12 cows valued at £360, necessitating two visits to a place six miles distant. After deducting rail and cab fares, gave just 1-3rd of one per cent. of the total value as examination fee.

To be asked to drive several miles out and home in order to make a conscientious examination and render a full report upon an animal for a fee of half-a-crown is, to my mind, an insult to any professional man who has any sense of self-respect. Quite recently I received a most impertinent request from a well known and well advertised insurance company to go to a place 15 miles distant in order to examine one horse for a fee of three shillings! Needless to say that report form still remains on my office table. I am aware that the Secretary of this company would argue in self defence that he did not expect me to make a special visit for this purpose, but just to look in when passing that way. But we cannot overlook the conditions set forth in the instructions; that we are expected to make the examination and duly report within ten days of receipt of same, or render some explanation for our apparent remissness.

As some weeks have since elapsed, I have no doubt that a neighbouring and more enthusiastic practitioner has been enriched to the extent of three shillings. There are, however, at times circumstances which we cannot disregard, for the said proposal may relate to an animal, or animals, belonging to a respected and valued client. Rather than leave the matter open for an enterprising practitioner to step in and take advantage of the opportunity to extol his personal and professional virtues, one has perforce to submit, and undertake the wretched business on the grounds of self defence. I should here mention that one of the chief inducements offered to us by Insurance agents to accept their miserable fees, is what they term the exceptional opportunities of gaining personal introduction to a possible new client—an opportunity which I regret to say is only too readily taken advantage of by unscrupulous neighbours, for reasons which I think are only too obvious.

I entirely fail to see in what respect the veterinary profession is in the least way indebted to insurance companies. We have not, so far as I am aware, placed ourselves under any obligation to them, inasmuch that we should demonstrate our gratitude by rendering them comparatively gratuitous services. They might argue that they have made it one of the conditions of their policies that we only are to be consulted in the event of any insured animal falling sick or meeting with an injury. Were it not that unqualified practitioners and other quacks are employed by insurance companies, we might have some faith in such an argument.

Why should we then—as they evidently expect us to do, practically give them one guinea, our universally recognised fee for examinations, for half-a-crown? Clearly a case of ninepence for fourpence!

Whenever we have ventured to protest against the paltry fees offered to us by the companies, they invariably defend themselves on the ground that live stock insurance is carried on without a profit, and consequently the premiums charged do not admit of the payment of better fees to veterinary surgeons. I will leave you to form your own conclusions upon this point. Many of us here present would gladly undertake the responsibilities of debenture or shareholders in any recognised standard insurance company doing live stock business. If competition has made it that the premiums

for animal insurance have to be so greatly reduced that it is the business of the insurance companies and not ours. There is no reason why this reduction should have been made at our expense. Let the companies pay a fair rate and so adjust their premiums according to the circumstances. It is absurd to be told that they cannot pay us better.

Compare the fees paid to veterinary surgeons with those paid to our more fortunate *confères* in the sister profession, who receive one guinea for each examination when the sum assured amounts to five hundred pounds or more, and a half guinea when the sum is less than this: no reduction being made whether one or twenty examinations are made at the same time. Moreover, all travelling expenses are allowed as extras, in addition to the ordinary fees, and responsibility is seldom or never queried should untoward results accrue. The doctors are permitted to make their examinations at their own convenience, and usually under the most favourable conditions.

How is it that an insurance agent receives at least 15 per cent. of the premium paid, and this an annual payment so long as the policy remains in force; whereas, we are expected to undertake the whole of the responsibility for one trivial payment of a shilling or two?

Frequently, the proposer happens to be a tradesman or a farmer, and consequently his animals are not available at all times to suit our convenience, the examination then having to be made by special appointment, more often on a Sunday morning, no matter what may be our religious scruples or the prevailing climatic conditions.

It would be interesting to know what is the aggregate amount paid annually by insurance companies for advertising and the printing of innumerable circulars and placards, with postages. A sum, I imagine, far in excess of the total paid in one year to veterinary surgeons for their valuable and indispensable services.

My own experience has been that whenever I have protested against the absurd payments offered a small increase has been readily granted, possibly sufficient in all to cover one's out-of-pocket expenses, which gives me some reason to believe that the companies are ready to consider our grievances and ultimately grant us a higher scale of fees, provided that we are enabled to approach them in a straightforward manner.

It has been suggested that proposers and policy holders should furnish their own veterinary certificates of examination in cases of insurance, thus relieving companies of all responsibility, which appears to be a quite reasonable arrangement and certainly one to our advantage, inasmuch as it would prevent the abuses to which I have previously drawn your attention.

There is every reason to assert that the business of live stock insurance as now carried on is done at the expense of veterinary practitioners, who are expected to work at a loss, undertake all responsibility, and into the bargain promote the interests of insurance companies amongst their clients.

Having reviewed some of the disadvantages under which we labour, it becomes incumbent upon us to endeavour to find a remedy. I am inclined to think that the soundest basis upon which to estimate the amount of the fees which we are to receive, should be calculated upon the value of the animal to be insured. As a suggestion for your consideration and approval, I would propose that we should be paid 2½% of the market value of an animal with a minimum fee of half-a-guinea, within a radius of three miles; beyond this one shilling per mile outwards in addition. Value to be estimated between agent and owner, and certified by the examining veterinary surgeon.

Unity is our only course. Unity is strength, and it is only by applying this maxim that we can hope for success. Without our assistance no live stock insurance

could profitably be transacted. Let us therefore take courage, and follow the splendid example set us by our medical *confères*. In like manner we must combine and refuse all insurance business until we are assured adequate fees for our services. Contra-combination on the part of the companies should not deter us from our purpose, they are not likely to increase their premiums, unless pressure is brought to bear on them. Competition between insurance companies should be no obstacle to the payment of reasonable fees to veterinary surgeons, for that is their business.

If the efforts of the South Eastern Veterinary Medical Association, to induce the Kent County Council to increase the fees paid to veterinary inspectors under the Local Authorities, have met with so much success, there is every reason to expect that our enforced negotiations with insurance companies will ultimately result to our advantage.

I would therefore suggest that, when we have fully discussed the points which I have now endeavoured to emphasise, the members of this Society should formulate a resolution to be forwarded through the Council of the R.C.V.S. or the National Veterinary Association, to Lloyds Committee, a representative body in the world of insurance, which meets weekly, to consider and adjudicate upon all matters pertaining to insurance.

Ere concluding my remarks, I would like to refer to another aspect of insurance. This is an era of insurance which may, before very long, threaten our existence as private practitioners. I refer to the State Insurance of Live Stock. We are all conscious of the existence of federal, village, and farmers' animal insurance clubs, which are now almost universal in Continental countries. Only recently, we have been circularised by a well-known insurance company on the question of the advisability of providing for professional attendance and medicine in their policies by the payment of an annual premium. This is but the thin edge of the wedge. Already many of the duties and responsibilities of the private practitioner have been taken over by the Board of Agriculture and Fisheries and are now administered by their inspectors, lay and otherwise. The Army Veterinary Corps is more and more becoming an automaton, equine diseases and their treatment being tabulated for the guidance of General Officers and N.C.O.'s. I refer to Army Nomenclature of Diseases, Army Red books, etc.

At a recent dinner of the Liverpool University Medical Society, Mr. E. T. John, Radical M.P. for East Denbigh, and a Welshman into the bargain, clearly hinted at the introduction at no distant date, should the present Government survive, of a National Health Insurance (Animals) Act, when he publicly stated "It has occurred to me, that if on reasonable terms veterinary surgeons would undertake to periodically inspect and certify the stock upon farms, and in some measure, reassure insurance companies as to the care and intelligence of the farmer himself, insurance might be greatly cheapened." Further, "It seems to me, that in this direction, there is room for increased usefulness on the part of your profession, which I am satisfied is likely to play a part of necessary importance in the general economics of agriculture." A statement which certainly connotes a timely warning.

A Departmental Committee, appointed by the Right Hon. Walter Runciman, M.P., President of the Board of Agriculture and Fisheries, is now sitting to enquire into the requirements of the public services with regard to the employment of officers possessing veterinary qualifications, and to consider whether any further measures can with advantage be adopted for the selection and training of students with a view to such employment.

The prospects of the private practitioner are far from

encouraging, therefore we must be prepared to safeguard our interests, for we cannot, all of us, become inspectors under the Act.

Finally, I would like to hear an expression of opinion by members of this Society, on the matter of veterinary surgeons' personal Life and Accident insurance. At present we are accepted under Class III. which means enhanced premiums, as this class includes all hazardous trades and perilous callings. Personally, I think that it would be reasonable on our part to request that we be accepted under Class II, which covers medium risks, and consequently lower rates of premium.

#### DISCUSSION.

Prof. WOOLDRIDGE opened the discussion, although he questioned whether he was the best suited to do it, seeing that he was not called upon to examine horses for insurance companies. He did not think there was any doubt in the minds of any of them that the scale of fees paid by insurance companies in general was very inadequate, and that in some instances it really amounted to little short of an insult to ask them to perform professional duties at such a ridiculously low remuneration. The chief point on which the discussion ought to devolve however was the best means of remedying the existing state of affairs. The subject had already been discussed pretty thoroughly by the South Eastern Veterinary Association, and he thought the members of that Association deserved thanks for having made such headway and wakened up other societies to the importance of this matter. He also thought that if Mr. DellaGiana had carefully read the reports of those discussions he would probably have modified some of his suggestions. One suggestion which he had particularly noted that afternoon was that with regard to the amount of remuneration which he suggested they should be paid. He (the speaker) did not think they could very well ask for anything like so much as 2½ per cent. on the market value when they bore in mind the fact that the insurance premiums, except in specially hazardous cases was very little more than that. They must also not forget that if they raised their fees too much they would be debarring the poorer people, who were most in need of the insurance of their animals, from taking advantage of it. He thought a far better way would be to ask for a percentage on the premiums rather than for a percentage on the value of the animals. Mr. Crowhurst and Mr. Toope would be able to give them some interesting details as to the amounts paid the agents compared with those which were paid to the professional men who were called in to examine the animals, and there he must say they had serious ground for complaint. The agent who performed purely clerical work was paid much better than the professional man; he believed the agent got something like 12½ per cent. of the premiums whereas the veterinary surgeon on an average only got from 2½ to 5 per cent. It had been suggested that the veterinary surgeon should combine the two duties, but he did not think they should be expected to do that. (Hear, hear). He did not know what steps they were going to take to remedy the present state of things, but whatever those steps were they should be taken in unison. If the various societies clearly showed that it was their desire some further steps should be taken in this matter, and they were prepared to act in unison, he was quite sure that the National Veterinary Association, as the central body, would be only too pleased to forward some scheme to the various insurance companies for their consideration. If this was done, however, it should be distinctly understood that the members of different societies would agree to abide by whatever fees were agreed upon, and that members should not go behind the backs of their *confères* and do the work for a smaller fee. (Hear, hear).

Mr. CROWHURST, President of the South Eastern Veterinary Association, remarked that he had felt for a long time past that their profession had been very badly treated by these insurance companies, and so far as his own Society was concerned they meant to push the matter to a conclusion. They were not afraid that any of their brother practitioners would step in and take what they left; if they did they would be very suitably employed. One gentleman who had refused to examine an animal for the fee offered said he afterwards saw his brother practitioner and his son in the yard presumably both earning that fee of 3 6. It was really too ridiculous. If they had any self respect at all, and wanted to raise their profession in the estimation of the public, they must begin with themselves. They often had appeals made to them on behalf of the Benevolent Fund. He regarded the Benevolent Fund as a splendid institution, but what he was trying to do was to put the profession in the way to earn better fees and so become independent, and not have to join a benevolent society to provide for their widows and children after they had gone. Give them a chance of earning a fair fee for their work, and there was plenty of scope for their profession. Let them pull together and try to better their conditions. All these local associations did a great deal of good, and they ought to try and get every member of the profession in their various districts to join them. They could then discuss such questions as this and that of veterinary inspectors fees, and also those paid by the Society for the Prevention of Cruelty to Animals, and after they had discussed these matter amongst themselves they could pass them on to the National Veterinary Association, which he was pleased to say was now becoming a living body and a most useful institution for their profession. They in Kent had drawn up a scale of fees, but they were only in nature of a suggestion and they would be quite willing to accept what was eventually agreed upon by the National. And if they were unanimous in adhering to those fees, and were careful in their examination of the animals submitted to them and saw that the insurance companies did not accept animals that were likely to die, he believed they would gain the confidence of the companies and secure adequate fees for the work they did with no more trouble than they had had in raising the fees for veterinary inspections.

Mr. E. WHITLEY BAKER remarked that he happened to occupy a position which he was afraid the majority of them would object to, in that he was an agent as well as an examiner, although he was such a good agent that up to the present he did not think he had ever recommended a single client to insure his stock. He thought the argument most of the insurance companies would adduce was this—They got, roughly speaking, about five per cent. for the animals they insured, and they were insured for one year only; consequently they were not able to pay much higher fees for examination unless they increased their premiums. He would also like to ask them whether they honestly thought the insurance of live stock was to the advantage or disadvantage of the insurers. In other words how many people had they met who had reaped much advantage from insurance? His own experience had been that it was out of pocket work, both for the veterinary surgeons and for those who insured.

Mr. THEO. C. TOOPE remarked that the few words he had to say would be mainly devoted to the financial aspect of this question. It was true the insurance companies paid them something for their work when it was a post-mortem examination, or something to get them out of a difficulty, but with regard to the examination of animals for insurance it was the agent who, in effect, paid them. Instead of getting 15 per cent.; as in most other branches, the agent got 12½ per cent., and the remaining 2½ per cent. with perhaps a little added went to

pay the veterinary surgeons. In Kent they had thoroughly discussed this matter and they had appointed a small committee to draw up the details of a scheme. He had sent this scale of fees out to a number of other societies, and he believed four or five had already passed resolutions to support it, but it was not put forward as the last word in any sense. Their scale was not based on the premiums but on the price of the animal, and in order to obtain the value of the animal it was not necessary that they should value it themselves. The value they took was the insured price of the animal. Personally he thought the scale his committee had drawn up was a fair and reasonable one, and what he would suggest to them—if they would pardon him making the suggestion—would be to appoint a dual committee to go further into the matter, and then bring it before the National Veterinary Association.

Mr. CAUDWELL remarked that he also happened to be an agent, but like his friend Mr. Baker he had never pressed it. Something had been said against veterinary surgeons holding agencies for these live stock insurance companies, but he did not see any objection himself. The only thing he blamed himself for perhaps was for not pushing it more than he had. Many veterinary surgeons had no compunction about running a shoeing forge, and if they drew the line at one thing they ought to draw it at the other. With regard to the fees paid for this insurance work, he admitted that they were at present small, but it was impossible for the companies to increase their fees unless they also increased their premiums, and in that case there was a danger that the premiums would become so high that they would deter people from insuring their stock at all. He also thought animals ought to be re-examined each year.

Prof. WOOLDRIDGE hoped he had not given the impression that he objected to veterinary surgeons also acting as agents. He did not say whether that was advisable or not, but the objection he raised was to the clerical part of the work being paid for at about five times the rate their own professional services were.

Mr. GOOCH remarked that he was quite willing to admit that he was an agent, although he had never pushed it very much, and working as he did in a district where Shire horses were bred by their thousands it was almost impossible for a veterinary surgeon not to be an agent. Some of their big horse breeders down his way insured for £20,000 and £30,000 a year, and paid premiums on those amounts. They thought nothing of insuring an animal for £1,000, and everyone of them had to insure. For in-foal mares he believed the premiums worked out at about 7½ per cent., but where all the animals were taken on, in-foal risks were not included, it might be done for 4 per cent. He quite agreed that the balance of the premium was on the wrong side so far as they were concerned, but he just gave the companies exactly what they paid him for. For instance he crossed out "soundness." They did not particularly want it for insurance; what the companies wanted to know was whether the animal was affected for breeding purposes, and particular stress was laid on affections of the heart.

Mr. DELLA GANA: An opinion as to soundness is what they expect.

Mr. GOOCH: They don't expect it from me, and what is more they don't get it.

Mr. BAKER: But they ask for it on their forms.

Mr. GOOCH: They might ask for it, but I cross it out and don't sign it with those words in. Mr. Gooch, continuing, remarked that although there were a great number of societies who professed to do live stock insurance there were only four or five who were worth working for, and there was at least a dozen on the market he should not think of going to. The insurance fees were low, but the men, remember, who need insurance most

are those who cannot afford to pay any more. Personally, he should never ask a man who was working twelve or fourteen horse to insure, because the premiums would as a general rule pay for any losses he might incur, but where they had these valuable breeding animals it was certainly desirable to insure, and the same remarks would also apply to racing stables.

Mr. BAKER asked Mr. Gooch if he had ever gone into the question whether it really paid these Shire horse breeders and owners to insure.

Mr. GOOCH: Certainly. They are business men, and if they could insure to better advantage themselves I feel sure they would do so. But they find it best to insure with the insurance societies. Mr. Gooch added that he never made a journey purposely to examine a horse. He merely wrote that he would be in such a district on such a date, and that if this would not do they must get somebody else. He also made it a practice never to go and see a brother practitioner's animals except as a referee.

Mr. SAMSON remarked that he had been looking down the scale of fees given him by Mr. Toope, and he thought that if they could get it adopted it would be a very good thing.

Mr. BANHAM remarked that he had always been opposed to these insurance companies. One fault he had to find with the business was that it gave an opponent a good opportunity or excuse to go into a client's yard and use the visit for his own ends. He admitted that the men who did this sort of thing were not desirable members of their profession, but the insurance companies rather encouraged that sort of thing, and therefore he, personally, had very little to do with them. If they could raise the fees he thought it would be a very good thing, but he was afraid they would still find there were plenty of people who would go and do the work practically for nothing.

Mr. ARCHER quite agreed with Mr. Gooch with regard to insurance in big breeding districts, and with regard to the fees question, he thought one thing they ought to aim at was getting the signing of the certificate considered the work of a professional man. If anyone was allowed to fill in these certificates he was afraid they would never be able to raise the fees to any appreciable extent, and they would get no end of unqualified men doing it.

Mr. DELLA GANA: Then it would be for the Council to take the cases up.

Mr. BANHAM: If the insurance companies are satisfied with it there is no law to prevent it.

Mr. ARCHER: What I contend is we should make the filling in of certificates by unqualified men an infringement of the Veterinary Surgeons' Act.

Mr. DELLA GANA, in the course of a brief reply, remarked that he thought most of the points he had raised had been accepted, but he still maintained that the fees should be based on the value of the animal to be insured.

Prof. WOOLDRIDGE proposed that they should pass a resolution heartily endorsing the action of the South Eastern Veterinary Association in their endeavour to obtain better fees for the examination of animals for insurance, and that a copy of this resolution be sent to the Secretary of the South Eastern Society.

Mr. SAMSON seconded this.

The CHAIRMAN: I take it that your proposition does not mean that we accept their scale of fees.

Prof. WOOLDRIDGE: No, sir, we have not discussed that.

The proposition was then put to the meeting and unanimously agreed to.

On the proposition of Prof. WOOLDRIDGE, seconded by Mr. CAUDWELL, a hearty vote of thanks was accorded

Mr. DellaGana for his paper, and a similar compliment to the Chairman for presiding, moved by Mr. Samson, and seconded by Mr. Archer, brought the proceedings to a close.

J. ALEX. TODD, Hon. Sec.

#### THE VETERINARY ASSOCIATION OF NEW SOUTH WALES.

The annual dinner was held on Friday evening, Nov. 15, at Baumann's. The chief inspector of stock, Mr. S. T. D. Symons, presided, with Major A. P. Gribben in the vice-chair.

Dr. A. S. Cambage (hon. secretary to the Dental Association of New South Wales), in proposing "The Veterinary Association of New South Wales," referred to the desirability of a greater exchange of views on subjects of common interest amongst the members of the medical, dental, and veterinary professions. He further noted the fact that both the Dental and Veterinary Associations were at present endeavouring to obtain legislation with a view to the better protection of the professions and the safeguarding of the public.

The PRESIDENT, in replying, traced the history of the Association, and showed that it was now active in advancing the interests of the profession in every possible way. He especially instanced the appointment of veterinary members of the Tuberculosis Advisory Board, the steps taken in connection with the Veterinary Surgeons Bill, and the appointment of a delegate (Professor Douglas Stewart) to the Australian Association for the Advancement of Science at the meeting to be held next year in Melbourne.

Major A. P. GRIBBEN proposed the toast of "The Visitors," and was replied to by Mr. H. M. Somer (secretary of the Royal Agricultural Association), who emphasised the need for carrying the system of veterinary certification of stud horses to a further stage.

Dr. FROUDE FLASHMAN, also responding, congratulated the veterinary profession on three important steps recently taken, the founding of a veterinary school at Sydney University, the endeavour to obtain legislation governing the profession, and especially on the formation of an association. He held that, however much individual members might gain through being strongly banded together in the association, this gain was secondary to the benefit which would accrue to the live stock interests of the State, and so to the State as a whole, from the formation of a strong veterinary association.

Before the conclusion Professor Douglas Stewart referred to the pioneers of the profession in this State, and the work they had done, and urged all members to give their utmost to the veterinary section of the Melbourne meeting of the A.A.A.S.

Amongst others present were: Dr. Dodd, Captain Matson, Captain Melhuish, Messrs. Vyner, Sanderson, Msasy, Silverthorne, T. M. Stewart, Thorpe, Bell, Doyle, Baker, and Max Henry, Hon. Sec.

#### Compensation for Tuberculous Cattle.

Replying to Parliamentary papers on a question by Mr. P. Guiney, Mr. T. W. Russell says that as a measure complementary to the Milk and Dairies Bill for England, recently introduced, the Board of Agriculture and Fisheries propose to issue an Order under the Diseases of Animals Act, 1894, dealing with tuberculous cows and providing for the payment of compensation in cases of slaughter by the Local Authority: and that the Treasury are prepared, subject to the assent of Parliament, to sanction the payment from the Exchequer of one-half of the net amount paid by way of compensation for a period of five years.

#### Stamping-out Louping-ill.

At the Conference of the Scottish Chamber of Agriculture, in Glasgow, on Saturday, Dec. 7th, Mr. George W. Constable moved that the Board of Agriculture for Scotland be respectfully urged to apply to the Development Commissioners for funds for necessary research with a view to the stamping-out of louping-ill, and that they should offer a substantial pecuniary reward to the person who first discovers an effective preventive of, or cure for, louping-ill. Further, that a committee of practical flockmasters should be associated with the investigation. He referred to the Departmental Committee appointed by Mr. Hanbury in 1901. That Committee ceased in 1905 when on the point of producing important results. Seeing that so much has been done in the case of cattle, surely it was time that something was done for the sheep men. They wished to start investigations where the Departmental Committee left off, and they wanted the Board to apply to the Development Commissioners for funds for a research and for a reward for the inventor of a cure.

Mr. John Elliott, Meigle, seconded.

Mr. Peter Reid, Dumbreck, Glasgow, said it was quite impossible for any private individual to carry on that investigation. In his opinion the Department Committee stopped when they were just on the eve of discovering a cure. He found that in Argyllshire at least £60,000 a year was lost through braxy and louping-ill. If the Board of Agriculture were to subsidise the Glasgow Veterinary College, and that College worked properly, they would be able to discover a cure.

The resolution was unanimously agreed to.

#### A Linseed Poultice.

She was the oldest inhabitant; he the young assistant, fresh from hospital, and full of surgery, but ignorant of country folk and their ways. She had a cellulitis of the dorsum of her foot, which he promptly incised and neatly fomented in approved out-patient style. Then he drove back dreaming of gangrene and amputations, and how to be efficiently aseptic in a two-room cottage. The next day he returned to learn that he had earned the name of "T Young Butcher," and the same fomentation was still on. Further instructions and a supply of dressings were left. Next day one wringing-wet change of fomentation had been put on, and the skin slough was extending. Dreams of amputation became more vivid. But next morning the chief found the young assistant taking more wool and boric lint, and hearing it was for old Bessie Barnes with the septic foot, told him not to waste dressings on one that did not understand them, but to give her a bottle of carbolic oil, and add it to a linseed poultice. "Those beastly poultices," rang in the ears of the young assistant as he drove out that morning. A week in practice and had he come to this already? But Bessie Barnes was delighted. And next day there was no pus, and the day after, the skin edge showed signs of healing, and after the next day it was only necessary to dress it on alternate days. And an eight-mile drive was saved. They did not understand the fomentations, they had no faith in them, nor the skill to put them on hot and dry, nor the time and help to change them often. But every septic focus in the village for centuries had had a poultice on. They put them on hot, and laughed when the patient winced, whereas they took the fomentation off and cooled it. There is scope still for the poultice, and even Lister could not ring its knell. It is cheap, it is easy to apply hot, it holds the heat better than a fomentation. In other words, it is efficient, and it has a place on the bodies and in the beliefs of the people.—*The Hospital.*



**Foot-and-Mouth Disease—A Suggestion.**

The following resolution passed at the last meeting of the Council of the Royal Dublin Society has been forwarded to the Government:—

"In order to restore confidence in the administration of the Diseases of Animals Act, and in view of the paramount importance of the live stock trade to Ireland, the Royal Dublin Society consider that the time has now come to appoint a Royal Commission to inquire into the administration of that Act throughout the United Kingdom, especially in regard to foot-and-mouth disease, and to report as to the legislative remedies required in respect thereof."

**REVIEW.**

LA FONDATION DE LA COLONIE FRANCAISE DE LA CÔTE D'IVOIRE. PAR FRED BULLOCK, Fellow of the Royal Geographical Society (London, Le "Courrier de Londres," 220, Westminster Bridge Road, S.E., 1912).

Those who know the Registrar of the R.C.V.S. are aware that he is possessed of attainments beyond those required by his office, and will not be surprised by the present little volume of 80 pages, which reveals him capable of conducting a historical controversy in a foreign tongue. About a quarter of a century ago, there was keen rivalry between France and England for the control over extensive territories and trade routes on the Ivory Coast. The French were successful, penetrating into regions hitherto untrodden by white men and concluding a series of treaties with native tribes, when an English expedition was actually on its way to attempt the same object. Thus the French Colony on the Ivory Coast was established, almost solely by the efforts of the young pioneer Marcel Treich-Laplène, who then became the Resident General and Administrator of the new colony, and very soon afterwards died from illness directly contracted during his explorations. Of late years there has been a tendency to transfer the chief credit for the exploit to the celebrated French explorer Capt. Binger, who was certainly associated with Treich-Laplène in the latter part of his work; and the task Mr. Bullock had essayed here is the restoration of Treich-Laplène to his rightful place in history as the founder of the colony.

About two-thirds of the book consists of a historical account—well and clearly written in French—by the author; and the remainder is made up of documentary evidence, with a bibliography and a map. The work is excellently done, and appears to conclusively establish Treich-Laplène's claim to the disputed honour; and, as its subject is not one of professional interest to our members, that is almost all that need be said of it. But it must be added that the volume has a considerable personal interest to ourselves and many other veterinarians, on account of its internal evidence of the sound scholarship and varied intellectual interests of our Secretary and Registrar.

W. R. C.

**Personal.**

Mr. JAMES HAYHURST, Veterinary Inspector, Blackburn, has been appointed Chief Veterinary Superintendent of the City of London and Superintendent of the Metropolitan Cattle Market. We understand the short leet for the appointment comprised Messrs. Hayhurst, Blackburn; Wilson, Manchester; Whitehead, Salford; Somerville, Edinburgh; and Mullane, Cardiff.

Mr. R. CRAIG TENNANT, F.R.C.V.S., has accepted the office as Senior Veterinary Inspector of the Hunters' Improvement Society, and Mr. EDGAR RINGER, M.R.C.V.S., Leamington; and Mr. H. W. CUNDALL, M.R.C.V.S., Swindon, were elected as his colleagues.

Mr. A. ARTHUR WHITE, M.R.C.V.S., who died at Auchtermuchty, was a capable and experienced veterinary surgeon. He was the eldest son of the late Mr. Robert White, spirit merchant, Bathgate. Educated at Bathgate Academy, Mr. White showed marked ability in studies. While serving his apprenticeship with the firm of Messrs. Baildon & Co., chemists, Edinburgh, Mr. White also studied for the v.s. degree, and by his association with Mr. Dalling, v.s., Little Boghead Farm, Bathgate, he gained much of the necessary practical instruction to better fit him for his profession. During his twelve years' sojourn in Auchtermuchty Mr. White built up a very successful business, and was much respected in the district. His death, at the age of slightly over 40, which took place somewhat suddenly as the result of a shock, is deeply regretted, and a poignant note is added to the sad event by the fact that Mr. White was only married about nine months ago.—*The Scottish Farmer*.

Sir THOMAS ELLIOTT, K.C.B., recently appointed Deputy Master and Comptroller of the Royal Mint, in succession to the Right Hon. William G. Ellison-Macartney, appointed Governor of Tasmania. The new Deputy-Master of the Mint has been Secretary to the Board of Agriculture since 1892, and is fifty-eight years of age. He was a member of the Royal Commission on Local Taxation, 1896-1902, and is a British representative on the General Assembly of the International Agricultural Institute.

At a meeting of the teaching and Staff Sub-Committee of the Governors of the Aberdeen College of Agriculture, it was agreed to advertise for a permanent lecturer in the department of veterinary hygiene in succession to the late Mr. J. M'Lauchlan Young. A letter was submitted from the Board of Agriculture for Scotland intimating their approval of the appointment of Mr. H. Fraser as temporary lecturer in veterinary hygiene.

**A CORRECTION.**

In last week's issue, p. 370, first column, fifth par. from bottom, for "Intestinal mastitis" read "Interstitial mastitis."

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# THE VETERINARY RECORD

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SIR STEWART STOCKMAN, M.R.C.V.S.

Veterinary surgeons will have only one feeling regarding the Knighthood which the New Year has brought to Stewart Stockman—pleasure that the honour has been bestowed upon one who deserves it so well. No worthier name could have been chosen as an addition to our too small list of veterinary knights. As a scientific investigator, Sir Stewart has done first class work upon a variety of subjects, his researches upon Contagious Abortion being perhaps the most valuable. In his capacity of Chief Veterinary Officer to the Board of Agriculture he has rendered sterling service to the nation, not only by his promptitude and efficiency in emergencies such as the recent visitations of foot-and-mouth disease, but also by his care and skill in organising his department into permanent readiness for such tests. Veterinary surgeons know all this, and also know how ready the Board's chief veterinarian has always been to assist working practitioners in their difficulties, and to avail himself of their special knowledge. His elevation to a knighthood will therefore be universally appreciated by the profession. At an early date we hope to have something further to say of Sir Stewart Stockman and his career. At present, we join the rest of the profession in offering him our sincerest congratulations.

## CASE-BOOKS.

The keeping of case-books is a practice which is more common among medical men than among veterinary surgeons. Many practising doctors keep case-books throughout their lives; but the number of veterinary surgeons doing the same thing, though perhaps greater than we know, is certainly too small.

A case-book, in which the details of all but the most trivial cases—if not, indeed, of every case—are noted daily, is a valuable assistance to a practitioner. By its means he can follow the progress of a protracted case, or trace the history of an individual patient, far more accurately than it is generally possible to do from memory. Further, a clinician who keeps a case-book can always collect and compare his experiences of any particular subject much more fully than can be done by the memory alone. Even if a practitioner elects to keep his case-book for his own private study he will find, after keeping one for a few years, that it has amply repaid the trouble spent upon it. If he choose to utilise his experience for the benefit of others, the case-book will become more valuable; for, by a few minutes writing at the close of each day, it is possible for a clinician to practically record his life's work. Young practitioners at least—especially those recently qualified—would do well to commence 1913 by setting up a case-book.

COMPLIMENT TO W. WOODS, ESQ., F.R.C.V.S.

On the recent rounds of the Board of Examiners Mr. W. Woods was much surprised and much gratified to be the centre of a pleasing incident. A member of the Board had remembered that Mr. Woods would complete his 21st year as an examiner, so communicated with his colleagues, and arrived in Dublin with a very fine silver cigar case. At a suitable interval when the whole Board collected for luncheon, Mr. Nicholson Almond—the second in long service—approached Mr. Woods, and in a few well chosen words presented the case. So well had the secret been kept that the recipient's look of surprise made a humorous scene until he quite realised the truth.

Mr. Woods is very proud of the present, and his colleagues on the Board are very pleased to have given the little recognition of his work and of his personal merits.

The complimentary dinner to Professor Woodruff on his leaving for Australia is fixed for January 8. at the Trocadero, 7 o'clock sharp.

Any gentleman desirous of assisting the musical programme should bring his music with him.

It is a great boon to the organisers to know beforehand the numbers to be expected, and gentlemen intending to be present should communicate with Professor Macqueen.

## SUBLINGUAL AND SUB-HYOIDAL RANULA IN THE DOG,

Prof. Udrisky, of the Superior School of Veterinary Medicine of Roumania, after some general considerations relating to ranulæ in the dog, relates the following case in which the two varieties (sublingual and sub-hyoid) co-existed in the same animal.

A bull dog, eight years old, was brought into the surgical clinique, with the history that for some time he had had an insensitive sac, of the size of a child's head and with fluctuating contents, at the superior and anterior part of the cervical region. The walls of the sac were sclerosed. Difficulty in respiration, caused by the pressure of this swelling upon the laryngo-tracheal region, was observed. The respiration was sometimes so much impeded that the dog was obliged to breathe with the mouth partly open.

The temperature was 101.6 F., and the general condition was good. On the two sides of the tongue two fluctuating sacs of the size of a walnut were observed, pushing the tongue upwards towards the roof of the palate.

The diagnosis arrived at was sub-lingual and sub-hyoidal ranula, and operative treatment was decided upon.

The animal was anaesthetised by a clyster of three grammes (about 46 grains) of chloral hydrate dissolved in a decoction of linseed, the region was cleansed, and the sac was explored with a trocar and canula. This exploration gave no result, the contents being too viscous to pass through the canula. Two incisions were then made in the middle part of the swelling, isolating an elliptical piece of skin. The sac, by the aid of the knife and curved scissors, was enucleated from the adjacent tissues, with which it had formed very strong adhesions, and the most important vessels were tied with catgut.

Finally the skin was united with interrupted sutures of silk, the wound was covered with a layer of sublimated collodion, and a bandage was applied with light pressure.

The two small cystic swellings in the mouth were then opened with a straight bistoury, giving exit to a material resembling white of egg; and Lugol's solution was injected into the cavities.

Next day the temperature was 102 F., and the general condition was good. The dog was lying with the neck stretched out, and the muzzle upon the paws. The bandage, which was a little saturated, was removed; and about 50 grammes (roughly about 1 2-3rd oz.) of sanguinolent liquid flowed from the operative wound. The wound was cleaned with a warm 4 per cent. emulsion of creolin, and the wounds in the mouth were painted with Lugol's solution. This treatment was continued, with the adoption of alternate applications of tannoform and iodoform to the wound in the throat, for sixteen days; when the skin having united the stitches were removed from the throat. A small remaining cavity necessitated a continuance of the dressings for four days longer, after which the dog left the infirmary completely cured. Throughout the period of treatment the general condition had been as satisfactory as possible. The highest point ever reached by the temperature (three days after operation) was 102.2 F. The difficulty in respiration had completely disappeared.

Udrisky records this case in support of his view that, in similar ones, the best and surest method of treatment is complete extirpation of the sub-hyoidal ranula, in order to avoid the recurrence which often follows a simple puncture, and that free incision followed by the injection of modifying agents suffices for the sublingual ranula.—(*Archiv. Vet.*)

W. R. C.

[Hobday advises complete excision of the sac wall in the case of sublingual ranula.—TRANSL.]

#### PREPARATION OF CALF LYMPH.

Dr. Blaxall, as a result of experiments with various substances, has found that treatment of glycerinated lymph with 0.1 per cent. of oil of cloves destroys the extraneous organisms without impairing the specific properties of the lymph.—[Annual Report of the Medical Officer to the Local Government Board].

#### BOVINE TUBERCULOSIS AND ITS PREVENTION.

At a largely attended meeting of the Mid-Cheshire Farmers' Association, at the headquarters, the Red Cow Hotel, Knutsford, on Monday night, Dec. 16, the president, Mr. G. Norris Midwood, in the chair, Mr. J. W. Brittlebank, M.R.C.V.S., D.V.S.M. (Vict.) gave an address on "Bovine tuberculosis and its prevention." Mr. Brittlebank, after eulogising the work of the president for the agricultural industry, said the subject had been discussed probably more than any other subject within recent years, but the whole question of tuberculosis in the bovine population remained very much in the same position as it did many years ago. Farmers every year were suffering enormous losses from the effects of tuberculosis. He found on reference to the returns of the Board of Agriculture that there were 2,739,246 cows, of which number 2,198,213 were cows in milk. Taking as a basis 215 pounds per in-milk cow they had practically 33 millions sterling, while averaging the remainder at £10 a head they had a further sum of 5½ millions. This represented one section of the industry which was of enormous value. It was estimated that from 30 per cent. to 40 per cent. of the dairy stock in Great Britain was infected with tuberculosis, and accepting the lower figure they found that dairy cattle to the number of 900,000 were tuberculous. The annual depreciation of each cow suffering from tuberculosis could not be less than a sovereign, and so they arrived at a figure which showed that agriculturists were losing in one section of the industry alone one million sterling per annum. It was a loss in small sums to a very large extent. The loss was made up by animals which became unthrifty, while there were others which became a total loss. It seemed to him that on a capital of something like 38½ millions the loss was something enormous, and apart from the question of public health and the transmissibility of the disease from animal to man, it was worth while agriculturists thinking for themselves whether there was a method of dealing with the disease to prevent the enormous losses.

There were other diseases which were fostered in the same conditions that fostered tuberculosis. They knew from their elementary teaching that lack of cleanliness, light and fresh air were conditions which favoured the development of the disease to an enormous extent. The same conditions helped to produce other diseases. Pneumonia was a fairly prevalent complaint in highly-kept and well-bred dairy stocks, and there was contagious abortion, and various other septic conditions produced in the same manner as tuberculosis. What the loss to agriculturists from these diseases was he had not attempted to estimate.

It seemed an impossible sort of problem to tackle, but if they commenced in the right direction, by moderate demands and by steady determination to recognise the facts and forget old prejudices, some progress would be made in dealing with what was undoubtedly one of the most serious questions for the community.

Science had proved that tuberculosis as a hereditary disease did not now exist. The possibility of calves born of tuberculous parents not contracting the disease when taken to healthy surroundings was demonstrated every day, and this being the case there was much hope for encouragement. Experience taught them that practically every cowshed where dairy cows had been living for some time was laden with the infection of tuberculosis. The bacilli were swallowed, and in course of time they were passed out with the dung, and later on the bacillus was liberated in the form of dust to carry on the work of spreading infection. The deductions from post mortems convinced them that tuberculosis was the result

of infection upon infection, owing to the fact that the animal was living in infection. These were sign-posts which told them that practically 75 per cent. of the housing of cattle was unsatisfactory, and grossly so.

When cattle were kept in conditions which prohibited cleanliness—they certainly prohibited fresh air, and in a large number of cases light—was it to be wondered at that the disease was so rampant? It was an almost hopeless struggle on the part of the farmer to keep his cows from disease so long as the housing was so unsatisfactory. The first step in dealing with the problem was to deal with the housing question. Tuberculosis was essentially a disease of housing. Where people lived in the open air they had little or no tuberculosis. He did not suggest, and if he did he would not be practical, that cows should always be kept in the open air, and so the first practical step was to inaugurate a campaign throughout the country for proper housing. Of course a landlord had rights as well as the tenants, and in the course of his experience he had met many landlords public spirited enough to carry out work asked of them without imposing any unnecessary charges on the tenants. All landlords, however, were not in the same position. They were so situated as to find it extremely difficult to carry out what were called "estate improvements." He was glad to see Mr. Longe present, because he desired to pay a tribute of thanks to the good work carried out on Lord Egerton's estate, and he only regretted that he had not a larger number of such excellent landlords to speak about. (Hear, hear.) In season and out of season requests had been met by Lord Egerton with the utmost courtesy, and improvements carried out on the farms on the estate which must ultimately mean an enormous benefit to the occupiers. (Hear, hear.)

There was only one method of dealing with the matter, and that was to secure compulsory powers to compel landlords to put their estates in proper order, and in the case of the necessitous landlords the State should advance them the money at a low rate of interest, so that they might do the work. If it could be done for Ireland why not for England and Wales? (Hear, hear.) Every day he had to examine cattle on premises where he knew it was an absolute impossibility for a man, no matter how honest he was, to keep them healthy, and yet his duty dictated that he must condemn them as diseased. Such a man was very often looked upon as a man who was not honest in his calling, but he knew different. This was a question which all farmers' societies should take up with vigour, and not be content to drag along under conditions which existed fifty years ago. When they had secured better housing they had some chance of producing animals free of disease.

Farmers also did not pay proper attention to the housing and feeding of calves. Often enough a calf was put on to suckle a cow whose udder was not fit to produce milk for any other purpose, and turned into a hovel where there was very little light and cleanliness. It was a well-known fact that the first twelve months had an important bearing on the subsequent years of the animal, and it was madness for farmers to jeopardise their stocks in the way they did now.

Under the Dairy and Cowsheds' Order they were compelled to whitewash in April and October, but if that were altered to deal with biennial disinfection an enormous amount of good would accrue to agriculture, and to dairy farming in particular. It was the simplest thing in the world, and if he could only persuade even a small number of those present to disinfect their cowsheds two or three times a year he would feel that he had done a certain amount of good. Mr. Brittlebank gave instances of the effects of periodical disinfectings, citing one case where the farmer was constantly suffering heavy losses owing to disease, and which disease was entirely removed by a system of disinfection. What the legislation

which was foreshadowed would bring he did not know. It would probably bring them a measure of compensation for condemned cattle, and that was badly wanted. But they must not stand still. Cheshire had always stood prominent as a dairy county, and they must take the lead. Everywhere else the question asked was what were they doing in Cheshire. In Cheshire there was as large a stock of tuberculous cows as in any other county, and the industry was hampered all round by the ravages of the disease.

A number of questions were asked, and in replying, Mr. Brittlebank said some of the questions were like those he had to answer when he appeared for his diploma. Colonel Legh had asked him a question about the cost of disinfection. The cost was very small, and what he recommended was chloride of lime, which might be purchased at eight or nine shillings a cwt., and that amount would be sufficient to disinfect about a hundred farms. A syringe might be employed for spraying it, every attention being paid to the walls. Mr. Burgess had asked whether the manure could carry the germs to the pastures. That was a point which was being investigated at the present moment, and there was a considerable weight of evidence in favour of the belief that certain pastures were undoubtedly infected. Last year they had what he called a season of grass starvation. The cattle were inordinately hungry, and they went under the trees and ate the rank stuff which lay there. Sunlight was one of the finest disinfectors they could have, but very little sunlight penetrated through the trees to the dung that was beneath, and the cattle being driven under the trees by the flies fed largely in those infected surroundings, and the consequence was that last year the percentage of the disease was higher than any since 1903.

## NATIONAL VETERINARY ASSOCIATION.

### SCOTTISH BRANCH.

A meeting of the branch was held in the Royal (Dick) Veterinary College, Edinburgh, on Saturday, November 9th, 1912.

Prof. GORTON read the notice convening the meeting, and stated that he had been appointed by the National Veterinary Association to convene a meeting of the Scottish Branch, and that he had sent notices to all members of Societies in Scotland. The first business was to elect a chairman for the meeting. He suggested that the President of the Scottish Metropolitan Veterinary Society, Mr. James Peddie, should be appointed Chairman. This was agreed to.

Mr. PEDDIE said he thought they should appoint Dr. Bradley as President, and Prof. Gorton as Secretary of the Scottish Branch of the National Veterinary Association. They all knew the amount of work that these gentlemen had accomplished in connection with this movement, and he thought it would be fitting that they should ask them to take office. He had much pleasure in nominating Dr. Bradley and Prof. Gorton.

Mr. RIDDOCH seconded the motion, which was unanimously adopted.

This was all the business.

## SCOTTISH METROPOLITAN VETERINARY MEDICAL SOCIETY.

A meeting was held in the Royal Dick Veterinary College on Saturday, Nov. 9th. The President, Mr. J. Peddie occupied the chair, and the vice-chair was taken by Mr. J. Riddoch. The following members and visitors were present: Messrs. Cameron, sen., Berwick; Aitken, jun., Dalkeith; Reynard, Perth; Wilson, Lanark; Mac-

kenzie, Kirkcaldy; McGregor, Greenock; Doughty, Ayton; J. Storie, East Linton; Reid, Cupar; Macfarlane, Doune; Maclaren, Brechin; Young, Leith; Henderson, Taylor, Mitchell, Cormack, Riddoch, Dr. Bradley and the Hon. Sec., Prof. Gofton of Edinburgh. The minutes of the previous meeting were read and approved.

The SECRETARY intimated the receipt of apologies for unavoidable absence from Messrs. Wallace, MacIntosh, H. Thompson, and Cameron, jun.

#### CORRESPONDENCE.

The SECRETARY intimated that he had received three letters which required consideration. He would take the first two together. One was from Mr. Reid, of Auchtermuchty, resigning his membership; the other was from Mr. Matthew, formerly of Selkirk, also resigning his membership. They were practically bound to accept Mr. Matthew's resignation, in view of the fact of his having departed from this country to take up permanent work in South Africa. The Council had discussed the question of Mr. Reid's resignation, and in view of the circumstances which had led him to send in his resignation and of the fact that he was one of the oldest and original members of the Society, they suggested that he should be elected an honorary member.

Dr. BRADLEY moved the adoption of the Council's recommendation.

Mr. CAMERON seconded, and the motion was carried unanimously.

Prof. GORTON said the third letter was from the Secretary of the Organising Committee of the International Veterinary Congress asking for a contribution to the expenses of the Congress. The letter appealed to the Society as a body to contribute, and also appealed to the officials of the Society to make an effort to obtain subscriptions from the members for the same purpose. The Council had discussed the matter and the President would make a motion on the subject.

The PRESIDENT said this matter was one which he was sure would appeal to every member of the Society. They all knew about the International Veterinary Congress, and were all aware that a very large sum of money was absolutely necessary if it was to be carried out in a manner worthy of the profession in this country. A meeting of the North of Scotland Society some time ago voted from their funds two guineas each year for three years. In addition, a suggestion was made that each individual member should agree to contribute 10/6 per annum for three years. Of course it was left to the individual to increase that amount if he felt inclined, but it was thought the sum of 10/6 was the minimum they might expect from each member of that Society. He took it that as this was a much larger society they would not like to be behind, and he moved that they subscribe from the funds of the Scottish Metropolitan Society two guineas per annum for three years and agree that their members be asked to subscribe at least ten and sixpence a year for three years.

Mr. REYNARD seconded. He said that the West of Scotland Society had agreed to contribute ten guineas payable in four instalments. All the members present had agreed to subscribe one guinea a head for three years. It was a deserving object. No one would miss one guinea a year, and for the honour of the profession in Britain they should do as suggested.

The PRESIDENT said he was quite agreeable to alter his motion, and to make it a guinea instead of half-a-guinea.

Mr. REYNARD said there was no need to alter the motion, but simply to leave it to each member to give what he thought proper. He was a member of the West of Scotland Society and would subscribe through that body, not from this Society, though he was a member of both.

Mr. STORIE asked what was the condition of the funds?

Prof. GORTON said they had about thirteen pounds clear in hand. Last year the Society had subscribed two guineas so that with the two guineas a year now proposed they would give eight guineas in all.

Mr. STORIE moved that they subscribe five guineas a year for three years, and that it be left to the individuals to subscribe 10/6 or more for three years.

After some further discussion it was agreed to vote five guineas for the current year and to contribute such further sums as the funds allowed in 1913 and 1914.

*Nomination of new member.* The President proposed Mr. ANDERSON of Pittenween, and Prof. Gofton seconded the nomination.

#### ELECTION OF OFFICERS.

The PRESIDENT said it was the prerogative of the retiring President to nominate a successor. It gave him much pleasure to put before them the name of Mr. Peter Wilson, of Lanark. Mr. Wilson had many qualities that would make him an excellent occupant of the chair. He took a great interest in their meetings and was a regular attender.

Mr. STORIE seconded, and Mr. Wilson was unanimously elected.

*Hon. Sec. and Treas.*—The PRESIDENT said that the office of Secretary and Treasurer had been discussed very fully by the Council in view of the fact that Prof. Gofton had intimated he could no longer see his way to discharge the duties. The Council suggested the name of Mr. Henderson. He had been told that Mr. Henderson was not very willing to come forward, but he had the feeling that if they asked him he would agree.

Mr. HENDERSON thanked the President for the honour, but said that he had not sufficient control of his time to accept office, and suggested the name of Professor Wilson.

Mr. STORIE said that Mr. Henderson was one of their most regular attenders, and they would be quite satisfied with the time he would give to the duties. He seconded the nomination. He could not agree with the proposal to elect Professor Wilson. A good many outside members had given up attending the meetings on the ground that the Association was far too much of a College affair. With all due deference to Professor Gofton who had made an excellent Secretary, he thought it would be an advantage to have a secretary apart from the College. They met in the College, and had several office-bearers from the College staff, so they had better have some changes at this time.

Prof. GORTON said he agreed in some measure with what Mr. Storie had said in regard to the office bearers of the Society being drawn too much from the staff of the College, thus making the Society almost a College organisation. That had influenced him in giving up the Secretaryship, but not so much as the fact that he had not time to carry on the work. He felt it desirable that members of the Society outside the College should take a more active part in the management of the Society than hitherto. There was no reason why they should confine themselves to members of the staff of the College, and if they could induce Mr. Henderson to take office they would find he was as capable and able a man as they could get. Professor Wilson's name had been mentioned to him before the meeting, and he had approached that gentleman. As Professor Wilson was not present he felt it advisable to explain on his behalf that the claims of other duties on his time made it impossible for him to undertake the work at present.

Mr. HENDERSON agreed to accept office, and was unanimously elected.

*Vice-Presidents*—Messrs. J. Peddie, J. Riddoch, and Prof. Gofton were elected, on the nomination of the President, seconded by Mr. Henderson.

*Auditors*.—Messrs. Riddoch and A. Baird were elected.

*Council*.—Messrs. Aitken, Baird, and Dr. Bradley were re-elected, and Mr. R. Reid was elected in place of Mr. Cameron, who wished to retire.

### ANTHRAX.

Prof. A. GOFTON, Edinburgh.

Prof. Gofton prefaced his remarks by expressing his apologies to the members for the position he occupied that afternoon. He had done his best to meet their wishes, as expressed at last meeting, to have a demonstration on anthrax that afternoon. He had approached several gentlemen well able to undertake the task, but unfortunately they had not been so willing as they were well qualified, and finally he was placed in the position of undertaking the task himself or of allowing their wishes to go by default. He felt further that some apology was due for the scrappy nature of his remarks, and for not having prepared a paper on the subject. He had been left with too little time in which to prepare a paper, and had merely jotted down a few notes from which he proposed to speak.

He purposed limiting himself strictly to a discussion of the post-mortem diagnosis of anthrax, because he thought it was as much as could conveniently be undertaken at one meeting, and it would harmonise best with the demonstration. Further, he thought it possible that a desire to have some of the difficulties removed which confronted the practitioner in making a post mortem diagnosis underlay the suggestion of a demonstration, especially in view of the differences of opinion which had so frequently arisen with the Board of Agriculture since the last order had come into force. He wished to make it quite clear that he had nothing new to communicate, all he might say had been well known for some years.

He would refer first to two points which had an important bearing on post mortem diagnosis, namely, the route of infection and the distribution of the disease in the body. Practically without exception in this country infection occurred by way of the alimentary tract in all the domestic animals, none of which were immune to attack. Cutaneous and respiratory infection, if they occurred at all under natural conditions, were so rare that they might for all practical purposes be disregarded.

With regard to the distribution of the disease in the body, it was important to bear in mind that anthrax was primarily a localised infection in natural cases. Invasion of the blood stream usually followed, but was by no means essential to a fatal issue—death might occur before it took place. Thus in cattle, sheep and dogs invasion of the blood stream before death was the rule; on the other hand, in the pig septicæmic anthrax was the exception. In some measure the horse might be said to occupy an intermediate position, invasion of the blood by the bacilli, though frequent, was not so constant as in the case of cattle.

As a rule, in cattle the veterinary officer had to base his diagnosis of anthrax on an examination of the carcass, the animal being found dead or having shown symptoms of illness for a few hours only. So well known was this that all sudden deaths amongst cattle were universally regarded as possible cases of anthrax, and examination of the blood for the bacilli had become an almost routine procedure in investigating the cause of death. Very seldom was a history other than that of rapidly fatal illness available. Swelling of the throat developing rapidly in the absence of evidence or history of injury, extending into the internaxillary spaces and down the neck, and associated with a high temperature,

was well known in the horse and pig. He would remind them, however, that in the horse the symptoms which more frequently immediately preceded death were those of colic. Generally the colic was of an acute type, and in the absence of a post mortem examination death would probably be attributed to twist, or to one of the other rapidly fatal lesions associated with acute colic in the horse. But the symptoms of colic were not always acute; he had observed indefinite subacute symptoms for periods of six to forty-eight hours before death.

The information gained from an inspection of an untouched carcass was only sufficient to raise suspicions. The bloody discharges from the openings of the body which were so frequently seen were neither typical nor constant. Tympany of the abdomen and rapid putrefaction of the carcass were a constant association of death with a full stomach, no matter to what cause it was attributable?

The anthrax order prohibited cutting the skin more than was necessary for the purpose of diagnosis, and it was usual to remove an ear in order to obtain the blood necessary for examination. In all suspected cases the blood should be examined microscopically, but the failure to demonstrate the bacilli did not necessarily negative anthrax; he would refer again to that point. It was most important that the blood used for examination should not have been contaminated. Bloody discharges were contaminated at the moment of escape, and the contamination increased rapidly with time, they were useless for ordinary purposes of diagnosis. Blood from the abdominal vessels and spleen pulp were unreliable unless obtained immediately after death because of the rapidity with which they were invaded with putrefactive organisms from the bowels. As a rule the blood from the superficial vessels of the extremities could be depended upon for thirty-six to forty-eight hours, and in cold weather for a longer but not an indefinite period, because within a comparatively short time after death the anthrax bacilli began to degenerate in the blood of an unopened carcass, independently of any influence exercised on them by the rapid multiplication of the organisms of putrefaction. Unless blood films were prepared immediately after the removal of an ear the best procedure was to fasten the ear to a board, reflect the skin and obtain the blood by incision of one of the vessels thus exposed.

It would be convenient at this point to describe briefly the features of the organism as seen in the blood. It occurred singly as a rod-shaped organism varying from 5 to 10 in length. Filaments were not formed as in cultures, but two or three would frequently be found end to end. Sporulation did not take place in the blood. The bacillus possessed a capsule which was best seen in bacilli in the blood from the superficial vessels.

Staining of the blood films was essential to diagnosis. The bacilli were easily seen in an unstained fixed film or in fresh blood examined microscopically, but the most that could be said from such an examination was that one saw bacilli, it was not possible to say what the bacilli were. They were easily stained, for routine purposes the ordinary watery solution of methylene blue was all that was required. The diagnostic value of this stain was closely related with the name of Sir John McFadyean. It stained the bodies of the bacilli blue, whilst the capsule was represented by a purplish coloured mass which hung round the bacilli, or appeared as purplish coloured clumps partly attached or in close proximity to the bacilli. To the naked eye the unmounted slide presented a purplish tinge. Much importance had been attached to this staining effect on the capsule, it had come to be regarded as diagnostic of anthrax bacilli. The best results were obtained with a fairly thick film, and it was essential that in fixing the blood on the slide too much heat should not be used.

Gram's method of staining was most useful when con-

tamination of the blood was suspected. It permitted of immediate differentiation from the bacillus of malignant œdema, which was gram negative, and was one of the most common putrefactive organisms to be found in the blood. Morphologically it closely resembled the bacillus of anthrax. Distinct differences might be observed in the appearance of anthrax bacilli when a film stained with methylene blue was compared with one from the same case stained by gram. In the former the bacilli presented square cut or slightly cup-shaped ends, in the latter the ends were often rounded, the bacilli might be somewhat distorted, and they usually appeared thicker. This difference was the result of the action on the bacilli of the gentian violet used in Gram's method. For satisfactory examination a 1/12 oil immersion lens was necessary. When bacilli were easily found in a blood film prepared as he had described from the carcase of an animal recently dead presenting the staining and other characters referred to there need be no doubt about the diagnosis.

He had previously stated that failure to find the bacilli in a blood film did not necessarily negative anthrax. So rarely was this the case in cattle that the statement could only apply to them in the most limited manner. It had a wider application to the horse, and still more so to the pig. Whilst he recommended the examination of the blood in all suspected cases they would probably obtain a negative more frequently than a positive result in the latter animal. If the blood proved negative the throat swelling in horses and pigs would provide the material in which the bacilli could be demonstrated. The swellings were due to the presence of a large amount of an almost clear watery or gelatinous exudate. The lymphatic glands which were embedded in the region would be found swollen, intensely congested, and very dark red or almost black in colour. If the pharynx were opened in the pig ulceration of its mucous membrane would frequently be found. The bacilli were easily demonstrated in films made from the lymphatic glands.

In the absence of throat swellings and with a negative blood the existence of anthrax would probably be overlooked unless a more extended examination were made. Since infection practically always operated by way of the alimentary tract, the particular lesions would naturally be found in the stomach or intestines. One or both of these structures would be found in an acutely inflamed condition, its walls being intensely congested and infiltrated with blood. A very noticeable feature was the presence along the affected portion of bowel of the same clear gelatinous exudate referred to in connection with the throat lesions. The related lymphatic glands were in the same condition as those found in the throat swellings.

He had in one case met with a lesion on the mucous membrane of the colon of a horse which he thought was analogous to malignant pustule of the skin of man. The lesion presented the appearance of a vesicle, was about an inch and a half in diameter, raised about one-third of an inch above the surrounding mucous membrane, and was covered with a thin dirty greyish necrotic layer. The elevation of the mucous membrane was due to the presence beneath it of a clear gelatinous exudate.

Doubtless the bacillus of anthrax could be demonstrated in the altered colic or mesenteric lymphatic glands without much difficulty if the examination were made immediately after death, but the position of these glands in relation to the bowels rendered them liable to early and considerable putrefactive invasion. Once this had occurred the differentiation of the bacilli and the demonstration of the presence of the organisms of anthrax became a laboratory procedure. The changes which occurred in the intestines and the related lymphatic glands were, however, like those in the throat region, almost characteristic.

Enlargement of the spleen, with a dark, tarry, almost semi-fluid condition of its pulp, was probably constant in septicæmic anthrax. Occasionally the organ was ruptured. When death from anthrax occurred before the bacilli had invaded the blood, changes in the spleen were, as might be expected, frequently absent. He was obliged for the patience with which the members had listened to his remarks.

#### DISCUSSION.

Mr. CAMERON asked for how long after death internal blood was reliable as a test for anthrax. In Aberdeenshire the superior authorities judging from the blood declared a certain case was not one of anthrax. A post-mortem was made and the spleen was available, and the superior authorities had then no hesitation in saying that the spleen was affected with anthrax.

Mr. REYNARD: By "Superior Authorities" do you refer to the Board of Agriculture?

Mr. CAMERON: No, I do not say that was the case.

Continuing, Mr. REYNARD said that was one of the points he wished cleared up. He had listened with great interest and had learned a few things he did not know before, and he thanked Prof. Gofton for the very complete manner in which he had treated the subject. He had referred to the Board of Agriculture at the outset, and he thought they were going to learn something about the Board and its ways, but they were as far forward as ever.

In a case he had recently he suspected anthrax, and satisfied himself by making a microscopic examination. He sent specimens to London, and got back "anthrax negative." He sent a slide to a friend who said he had no doubt it was anthrax. His opinion was also confirmed at the Dundee University College by microscopical and cultural examination. He then spoke to the Chairman of their County Council, and said that the party who owned the animal could not afford to lose it. The animal was insured, but so long as the Board of Agriculture said there was no anthrax the insurance would not be paid. The Council wrote the Board of Agriculture and received a curt reply, the effect of which was "mind your own business." They kept pressing on the Board of Agriculture, but they would not admit it was anthrax, and ultimately the man lost his insurance.

There was another peculiarity. The Board of Agriculture said the veterinary profession were quite able to say there was not anthrax, but were quite unable to say it was anthrax. He thought blood should be sent to the Board of Agriculture in every case reported as anthrax. In his view the present anthrax order was devised to keep down statistics; not to suppress anthrax. He had seen a few cases of anthrax in the horse, but in every case neck lesions were present. He had never had a case showing symptoms of colic. The same remarks applied to the pig.

Mr. STORIE said that all of them had had experience of the Board of Agriculture sending back word that they were not dealing with anthrax, but he did not altogether blame the Board. By the time specimens reached them decomposition was setting in, and they would be unable to find the anthrax bacillus. He was much disappointed with Prof. Gofton's paper, because he had expected him to tell them something new.

Prof. GOFTON: There is nothing new to tell.

Continuing, Mr. STORIE said it was time there was something new to tell; they should strike out on different lines. Where did the bacillus come from? They had not in this country a temperature suitable for sporulation. How was the disease propagated in this country? The Board of Agriculture should spend money in investigating this question. The bacillus was, to his mind, a very few steps away from the simple cell which they understood to be the beginning of life. He had a strong



idea that evolution occurred in the bacillus. It might come from other bacilli. He had read Prof. Schfer's paper delivered before the British Association at Dundee, and had studied the subject of evolution. He thought there was a vast difference with regard to the effects of some strains of anthrax as well as of other bacilli. He knew of cases where an animal had been dressed and the blood spread about the farm place, the poultry running through it and picking it up and yet nothing more was heard of it. He had great experience of splenic apoplexy. He had seen any number of fat animals killed and dressed and sent to the market.

He knew a farmer who could tell the animal that was likely to be next affected with splenic apoplexy. There was, he thought, something about an animal which predisposed it to anthrax or permitted of the evolution of the bacillus. He should like very much if they went into the subject of where they got that anthrax. In regard to insurance he had good authority for saying that the insurance companies had got the clause inserted into the anthrax order giving the Board of Agriculture the duty of deciding whether a case was anthrax or not. The secretary of an insurance company had told him that he been down to the Board of Agriculture on the subject. Another point was as to whether the blood coagulated in anthrax. If the blood of an animal coagulated he would say without hesitation that it was not a case of anthrax. Another point which made him think that some evolution of the bacillus was going on was the different ways it affected animals. He had said he knew a farmer who could tell which prime fat ox would be next affected. It was always the best doing animal in the court which took the disease, an animal that was making blood too fast.

He had never seen anthrax affect a horse in any way but in the neck. If they found the swelling down the neck and in the throat they could be pretty certain it was anthrax. It was something similar in the pig. He was always under the impression that anthrax was a blood disease and that the bacilli was present in the blood.

He had had experience of many cases recovering. In one outbreak twenty cattle were affected, and of these six died and fourteen recovered. He had an outbreak the other day when two animals were affected, and one lived for forty-eight hours. At first its temperature was 108 F.; it fell to below 104 F., and he expected it was going to recover, but it died on the following morning. With reference to the length of time between infection and death, he did not agree with Prof. Gofton that an animal might have the anthrax bacilli in its body for 14 days. That was quite possible. The bacilli propagated far too fast for that. He would give them two or three days at the very most.

Mr. CAMERON said he was accountable for this subject being suggested at last meeting. He fully expected that Prof. Gofton would have got someone to undertake the duty, but he was not disappointed that the Professor had treated the subject himself. It was not very creditable that so many should have shirked their duty, but they were much obliged to Prof. Gofton for the able manner in which he had treated the subject.

Mr. HENDERSON referred to a case of anthrax in a sheep which had probably been infected in the slaughter house. In the old days they used to cut up the anthrax carcasses and destroy them in their own furnaces, and he thought some of the sheep had travelled through infected blood. He thought this was an exceptional case, they often had sheep die in the pens, and although every case was looked over he had not met another case. He thought that what Mr. Storie had said with regard to coagulation of the blood was a pretty good rule to go by. If they found the blood coagulating in a dead sheep they would probably find on looking at the spleen that

there was no enlargement. There was sometimes a softening of the spleen in an anaerobic disease such as braxy, and it was then difficult to say which was which without a microscopic examination. Mr. Storie was not quite accurate with regard to sporulation in this country, there was no spore formation below 12 C. and none above 43 C. He had seen carcasses eviscerated and anthrax found. If dressing had been continued it would frequently have been impossible to tell the difference between these carcasses and sound ones. He attributed the fact to the disease being too rapid for any material change to take place in the carcass by which anthrax could be diagnosed with certainty. He was referring to the dressed carcass solely. They might suspect anthrax if they saw a dressed carcass and found the blood not coagulated after a reasonable time, but he thought many a mistake was made, and that many anthrax carcasses had gone into the market.

Mr. MACGREGOR referred to a case in Yorkshire which occurred in a field containing forty head of cattle, two hundred sheep and sixteen horses. Only cattle were affected, and eleven died in three months. He emphasised the point that no sheep or horses died, and that some of the animals which were affected recovered.

Mr. TAYLOR agreed with Professor Gofton that horses affected with anthrax often showed symptoms of colic.

Mr. MACLAREN said he had listened with much pleasure to the paper. He had hoped that Professor Gofton would have referred to the mortality in cattle, because that was a very important point. Some years ago he had read a paper to the Society in which he expressed the opinion that there was a large number of recoveries. There was not a single member present who agreed with him; his opinion was regarded as utter heresy. He had had considerable difficulty with his County Council on the same matter. In one instance twelve cows were lost and they had shown symptoms of illness for three or four days before death from anthrax. The County Council contended that if there had been anthrax they would have died within half-an-hour, and after he had certified the cattle had died from anthrax the County Council put the carcasses on to the market for food. He held that it was a great mistake to think that animals with anthrax could not live for four or five days. He had known affected animals live for seven days. It was only after the organisms gained the blood stream that death was inevitable. There were a fairly reliable group of symptoms in cattle if only they were observed. The whole object of the Board of Agriculture was statistical. They desired to know the extent and prevalence of the disease. When that purpose was served the veterinary profession would have sole power to say whether anthrax was present or not. They would find anthrax was often due to infection with imported feeding stuffs. Fat cattle were the most common subjects because they were eating more cake and artificial food. Sometimes a whole steading was cut off, lean cattle as well as fat cattle. He did not dispute that there might be something in the theory as to the evolution of the bacillus, but it would take a long time for that process of evolution to work out. He believed that if they went back to ancient times they would find that anthrax was one of the plagues of Egypt.

In regard to insurance companies, it was a debasing thing that a man should be asked to write a certificate for an insurance company and then to be asked to verify his certificate by showing private correspondence with the Board of Agriculture. He had stood out resolutely against that. If a man wrote a certificate he should not be called upon to furnish a verification of it. He was sorry the profession had ever given way to such a debasing practice. Insurance companies had been too dictatorial in many cases, and that was one point in

which we should take up a firm attitude in regard to them.

Mr. STORIE said he had omitted to mention that it was a great mistake to imagine that they could not diagnose splenic apoplexy without a microscope or a clinical thermometer. In his younger days they diagnosed anthrax as well as they did now, and the clinical symptoms were most marked. They could always see a twitching of the muscles of the skin.

Mr. WILSON (Lanark) thanked Professor Gorton for his able paper and for the fund of information it contained. He did not think every animal affected with anthrax died suddenly. He had known cases in which dairy cows died of anthrax and they had been unwell for one to three days. He believed that if bullocks which were getting artificial feeding were tied up and examined as carefully as were dairy cows they would show symptoms of ill-health, more or less well marked, before death.

Prof. Gorton had said that inoculation was an infrequent method of infection with anthrax. He believed that to be the case, but he had seen one case of localised anthrax in the flank of a fat bullock, following the death of another bullock in the same pen from anthrax. A swelling developed at the fold of skin at the flank, and it ultimately extended as far forward as the fore leg. There was never much pain in the swelling nor was there much heat. The temperature ran high—105 to 106 F.—and the animal showed rigors and symptoms of rather a severe affection. He had treated the case with salicylate of soda and carbolic acid. He had never seen a swelling like it in a bullock without some severe injury. The bacillus affected fat cattle principally, and it attacked different animals in different ways. He did not think there was evolution of the bacillus. He inclined to believe it was due to a difference in the chemical composition of the animals' blood. He sometimes thought the change might be due to excessive feeding making the animals more susceptible to the effects of the bacillus.

Prof. GORTON, in reply, thanked the members for the very easy way in which they let him down in regard to his remarks. It seemed to him that the greater number of the speakers had discussed an aspect of the subject that he had not ventured to broach at all. When the request was put forward that there should be a demonstration on anthrax at this meeting it seemed to him that naturally the remarks which accompanied the demonstration should refer to the examination of the blood, the appearances of the organism and the various positions in which it might be found. There would be some difficulty fitting in a discussion of the general symptoms of anthrax or the hypothetical evolution of the bacilli with a demonstration. At any rate, neither seemed to him to him to be very compatible with a demonstration. He had ventured to limit himself to that aspect of the subject which he had chosen as the most appropriate, for the very obvious reason that if he had not confined himself to one aspect of the subject, a paper would have been produced which would have taken up an unreasonably large amount of their time. Mr. Storie had expressed regret that he had told them nothing new, and had immediately contradicted himself by saying that it was new to him to learn that anthrax in the horse was sometimes manifested by symptoms of colic, and that neck lesions were not such a constant feature as his experience had led him to believe. He disagreed entirely with Mr. Storie's view. Not more than twenty-five per cent. of cases of anthrax in the horse were localised in the neck. He believed this figure to be too high, but he suggested it as a maximum. The remaining cases were localised primarily in the stomach or intestine—particularly in the latter and the related lymphatic glands. He had experience of an outbreak of anthrax on board ship amongst five hundred horses, infection being attributed to a particular lot of oats. Some

ten or twelve animals died, only one of which showed throat lesions. He had had no microscope available for diagnosis, but had satisfied himself of the existence of anthrax by post-mortem examinations. Mr. Storie had stated that he always understood anthrax to be a septicæmic affection, and here again he had failed to appreciate the fact that some information had been communicated to him. It was a well known fact—and one proved beyond question—that anthrax in pigs was rarely septicæmic; it was practically always localised. Similarly in the horse, death quite commonly occurred without invasion of the blood by the bacilli.

He would not discuss Mr. Storie's ideas as to the evolution of anthrax bacilli. No doubt he might have produced a paper based on Mr. Storie's hypothesis which would have been extremely interesting, possibly highly entertaining, but it would have been of no value, since it must necessarily have been purely speculative.

Several speakers had referred to the duration of anthrax, and seemed to be under the impression that he believed the manifestations of the disease never exceeded two or three hours. That impression seemed to have arisen from his remark that the usual history which accompanied a case of anthrax was—one or two hours illness, or found dead. He stood by that statement. He had himself remarked that the horse might show symptoms of illness for one or two days before death. In regard to cattle, the symptoms which sometimes preceded those of an immediately serious character were too frequently not observed, or they were disregarded; and it still remained true that the history they received with 90 to 95% of the cases of anthrax to which they were called, was one or two hours illness or sudden death. He had avoided discussing symptoms because had he attempted to do so he would have greatly exceeded their time.

In regard to the question of recovery from anthrax, he quite agreed with the possibility of recovery; but recovery was only possible so long as the disease remained localised. Once it became septicæmic death was inevitable. The number of recoveries was only a matter of assumption, since the only positive evidence of infection was the demonstration of the bacilli in the body of the animal.

Reference had been made to the fact that the carcasses of anthrax animals had often been passed through the dead meat markets and consumed for food, and that no ill-effects appeared to follow amongst the consumers. He had seen a man open an anthrax carcass, and, without washing his hands, sit down and eat his food—nothing happened. On the other hand he quoted an instance in which the carcasses of two bullocks had been dressed and sent through the dead meat market; two of the butchers who assisted to dress the carcasses developed anthrax, and one woman who purchased a portion of the meat had developed malignant pustule by inoculating herself with a spicule of bone whilst preparing the meat for cooking. Without doubt cooking explained in a large measure, the reason of escape from infection when anthrax flesh was consumed.

Sporulation had been mentioned, and it had been suggested that sporulation did not take place in the open air in this country. He disagreed, the statement was contrary to proved facts. Sporulation took place freely in the open air in this country, and our summer temperature was eminently favourable for it.

He thanked them for the patience with which they had listened to his remarks, and invited them upstairs to examine the slides and cultures which he had prepared.

The slides exhibited were prepared from fresh anthrax blood stained by various methods; slides prepared from cultures; from contaminated blood, not anthrax; but containing organisms resembling the anthrax organism morphologically; slide of the bacillus megathelium.



## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN. Week ended Dec. 21	7		19				2	2	68	164	17	45	704
Corresponding week in	1911	15	17				1	5			16	46	600
	1910	32	36				3	5			30	38	520
	1909	28	36				7	13			38	32	295
Total for 51 weeks, 1912	729		826		83	645	173	314	2815	5942	295	2888	39220
Corresponding period in	1911	886	1095		19	487	206	499			408	2427	29874
	1910	1435	1704		2	15	340	995			479	1527	14667
	1909	1294	1675				526	1739			662	1686	14300

† Counties affected, animals attacked : Berks 1, London 1.

Board of Agriculture and Fisheries, Dec. 24, 1912.

IRELAND. Week ended Dec. 21	...	...	...	...	...	...	...	Outbreaks	2	12	1	12
Corresponding Week in	1911	...	...	...	...	...	...	2	9	3	64	
	1910	...	...	...	...	...	...	1	21	5	17	
	1909	...	...	...	...	...	...	1	21	...	2	
Total for 51 weeks, 1912	...	3	3	68	380	...	...	66	370	212	1675	
Corresponding period in	1911	9	16	...	...	...	...	58	333	174	2563	
	1910	7	13	...	...	...	...	65	456	95	2152	
	1909	8	3	...	...	...	...	75	417	88	1570	

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Dec. 23, 1912

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

Cultures of the organism on different media were also exhibited.

In connection with the meeting the following firms gave an exhibition of instruments and drugs : Messrs. H. Hilliard and Son, Edinburgh ; Messrs. A. Young and Son, Edinburgh ; Randall-Faichney Co., Boston, U.S.A., and Messrs. Parke Davis & Co

#### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting was held on Dec. 5th at the Grand Hotel, Manchester, the President, J. W. Brittlebank, Esq., in the chair. The attendance included Messrs. Taylor, Wolstenholme, Munro, jun., Woods, Edwards, Wilson, Dobie, Giblin, Abson, McKinna, Noel Pillers, Lloyd, Mattinson, Walker, Richardson, Hopkin, Lawson, Blakemore, Holroyd, Spruell, Whitehead, Share-Jones, Clarkson, Carter, Locke, Heyes, and Turner.

Visitors : Prof. Woodruff, Messrs. Brooke, Sampson, Holland, Bowes, and A. M. Munro.

Apologies for absence were received from Messrs. Packman, Richardson, Sumner, Hughes, Garnett, Wharam, Faulkner, and Darwell.

The SECRETARY reported that Mr. Darwell's absence was occasioned by the loss of his wife, and it was resolved to send a letter of condolence.

The minutes of the last meeting were taken as read on proposition of Mr. Wolstenholme, seconded by Mr. Pillers.

The SECRETARY submitted receipt for cheque to the International Veterinary Congress, being the balance of the Entertainment Fund for the visit of the N.V.A. to Manchester.

Royal Sanitary Institute Congress at Exeter, July 7 to 12, 1913.—A communication inviting the Association to send delegates was read. It was resolved that no delegates be sent.

A letter from the South Eastern V.A. was read which conveyed the thanks of that Association to the Lancashire V.M.A. for the moral support given in the matter of veterinary surgeons' fees.

The PRESIDENT said that the whole question of fees was brought up at a recent meeting of the Council of the National Association, and it was decided to elect a small sub-committee to collect information as to the fees paid throughout the country, and then draft a scheme to refer to the Branches for consideration. It seemed to him that it would be wiser if this subject were taken up on a wider basis than a moral basis.

Mr. NOEL PILLERS agreed that moral support was not much good. They ought to give the question physical support.

New Members.—Messrs. F. T. BLAKEMORE, Hyde ; H. H. LORD, Eccles ; D. MACGREGOR, Preston ; and E. E. WOOD, Eccles, were unanimously elected members of the Association, on the proposal of Mr. Brittlebank, seconded by Mr. Locke.

Mr. BLAKEMORE returned thanks for his election.

Mr. EDWARDS reported that he had seen Mr. Price in reference to his proposed resignation, and was pleased to say that it had been withdrawn.

*Election of Council R.C.V.S.*—The Council of the Lancashire V.M.A. recommended that Mr. Packman and Mr. Carter be the candidates of this Association. Mr. Lawson moved, and Mr. Taylor seconded, that this be adopted. It was also resolved to join with the usual Societies in this election.

#### ELECTION OF OFFICERS.

*President.*—Mr. Lawson wished to propose Mr. G. H. Locke. He did so as one of the oldest members of the Association. Having watched his father's career from the lowest to the highest position, and being with him when he occupied the highest position in the profession, he desired to testify as much for Mr. Locke's son. He hoped Mr. Locke would follow in his father's footsteps. Certainly he had made a good beginning, he had been a hard worker for the Association for many years, and is known throughout the land. No one deserved the position more than Mr. Locke.—Mr. Hopkin seconded.

Mr. STENT, in supporting, said that as a past President he knew full well what Mr. Locke had done to make the work of President a successful and pleasant duty. He enumerated the Presidents who had been elected whilst Mr. Locke had been Secretary, and said that if each of these gentlemen were asked their opinion all would pay a similar tribute to the one he desired to pay.

Mr. BRITTLEBANK also supported the proposal which he thought to be the most popular one ever put to the Association. He deeply appreciated the help and kindness received from Mr. Locke, more especially during the two years that he (Mr. Brittlebank) had been President.

Mr. LOCKE replied that when he intimated twelve months ago that he would give up the position of Secretary he did not think that he would receive the honour they had now conferred upon him. No effort would be spared by him to uphold the prestige of the Association. His past work had been a labour of love and the end in view was to advance the interests of the Association.

*Vice-Presidents.*—As suggested by the Council Messrs. CLARKSON, DOBIE, and BRITTLEBANK were elected, on proposition of Mr. Taylor, seconded by Mr. McKinna.

*Treasurer.*—The President proposed that Mr. STENT be re-elected to this well paid position. The work had been exceedingly well done. Mr. Wolstenholme seconded.

*Secretary.*—Mr. Locke desired to have the honour of proposing that Mr. BRITTLEBANK be elected Secretary. Mr. Clarkson seconded.

*Auditors.*—Messrs. FAULKNER and TAYLOR were re-elected.

*Council.*—It was recommended that the Council be formed of Messrs. Woods, Wolstenholme, McKinna, Munro, Lawson, Packman, Sumner, Hopkin, and Holburn, together with the officials. This recommendation was adopted on the proposal of Mr. Lloyd, seconded by Mr. Abson.

*Annual Dinner.*—Mr. Wolstenholme proposed that there be the annual dinner, and that ladies be invited. Mr. Taylor seconded, and it was adopted.

#### RETROSPECT AND PROSPECT : THE PROFESSION'S POLICY.

By Prof. HAROLD A. WOODRUFF.

Mr. President and Gentlemen.—It seems to me perhaps somewhat impertinent that I should come here and stand before so many senior members of the profession, and attempt to enunciate any policy, and yet when I consider my standing in the profession I find it is fourteen years since I became a member ; that I have been engaged in teaching for twelve years, and after all one may assume to have formed some opinions and have some little experience in that time. I propose in the

first place to briefly survey the conditions of things when I joined the profession in 1898.

We had then four schools, and two of them were proprietary schools. The four-years-course was well established. The number of students was at a high level, and the Royal College was making money.

In practice canine surgery and medicine was coming into its own slowly.

Turning to contagious diseases, glanders was thriving, rabies was a constant menace, and swine fever was in much the same condition as now except that it was a more lucrative field for the private member than it has recently been. Tubercle was in the anti-Koch days—I do not mean before he discovered the bacillus, but before he had suggested that bovine tuberculosis was negligible as a cause of the disease in man, so that both the medical and veterinary professions were demanding that something be done to tackle tuberculosis. Of course we did not know anything about the true etiology of contagious abortion, and John's disease was unknown.

And now turn away from contagious diseases to the appointments open to the profession. Board of Agriculture appointments—that is whole time appointments—were not so numerous nor so satisfactory as now. Members of the Army Veterinary Service were dissatisfied with regard to their titles with the fact that they did not rank as military men, with the prospects of promotion, the long period they had to wait for a captain's rank or majority with the rank of the service officer (the director-general was only a colonel) and with their pay.

The number of public health appointments were few and one has always felt that Manchester occupied a pioneer position. We had to talk about Manchester when we wanted to suggest to other local authorities the advisability of appointing veterinary surgeons.

There were no post-graduate courses. A man obtained his Fellowship without much extraneous help, and no organised post-graduate instruction. Universities had not taken us up. There were no University degrees in veterinary medicine, no University associations, and no motors. So much for a retrospect.

Now let us turn to 1912. How do we find the profession to-day ? There are five schools, all incorporated, none proprietary, and that is a step in the right direction. But even now not one of these schools is secure financially. There is no proper financial backing to enable them to carry out their work as it ought to be done.

These schools are associated with Universities, which is again a great advance, and there are two Universities in the United Kingdom granting degrees in veterinary medicine, namely London and Edinburgh.

The number of students in our schools is considerably less. The Royal Veterinary College instead of making money is losing money, and the loss is becoming greater year by year.

Canine practice has come into its own, it is important and I think that the surgery, that is practical surgery, can be compared with that of the human subject. Anaesthetics in the dog have been improved and are in general use.

With regard to contagious diseases, what might have been affirmed from the history of the past has proved true, that where veterinary advice has been taken contagious disease has been successfully grappled with. You have the best example in connection with glanders, which has been practically wiped out. The same is true in a lesser degree of rabies. Parasitic mange has been added to our duties as a scheduled disease, and at present we are troubled with foot-and-mouth disease. Speaking of this disease, its failure to establish itself notwithstanding its frequent re-introduction into the country from abroad during the last two or three years must be considered highly creditable to the profession,

and especially to Mr. Stockman and his staff. Incidentally I may mention that one of my last duties was to say good-bye to Sir John M'Fadyean, who has gone to India to try and solve some of the problems of this disease, and I am sure we shall all wish him success in that mission.

In regard to tuberculosis, we had a few years ago the pronouncement of Koch that it was not dangerous. We had our Royal Commission. That Commission is only one of many that have met in different parts of the world, and all are unanimous in stating that there is danger, and that tubercle of bovine origin can infect and be the cause of fatal tuberculosis in man. Yet no action is being taken. The major report of our Commission was issued in 1907, five years later we are still in the same position.

At the Board of Agriculture the tenure of office of the Inspectors is more secure, the men are eligible for a pension, and they are able to go through a scientific training in the laboratory, and to take up post-graduate study, which was never thought of in the old days. That position must be considered satisfactory.

In the Army, again comparing 1912 with 1898, see what a great improvement has been made, largely due to the work of Mr. James Simpson. The improvements are very real, as you will soon hear if you talk to army men.

There is one branch of the Service which I should like to mention, namely the Army Reserve for veterinary surgeons. Everyone here is familiar with the history of the Civil Veterinary Service which did duty in South Africa, a very valuable and important duty, but at the same time by men who were unorganised for the work. The Army Reserve is a very excellent way by which a veterinary surgeon can attain some training for which he will be fairly well paid, which he will find beneficial in ordinary practice, and which entails little loss of time, but for which there is an annual retaining fee of twenty guineas. He is pledged for mobilisation with the Army, but he has had his training and does not need to attend any drills or camps.

Respecting public health the number of appointments has increased by leaps and bounds. The influence of these men given over to public health work has also increased out of all knowledge, they have a special society of their own, which shows that they are organised and fairly numerous.

Then, too, in the profession there are post-graduate courses, at one of which, in London, 350 men have attended. Courses are also held in Manchester and Liverpool, and are meeting with public appreciation.

Then, of course, in 1912 as against 1898 we have had the advent of the motor, and I find a considerable number of veterinary surgeons making excellent use of them.

On balance, 1898-1912, I think we must say the profession has advanced in every way you look at it, either from an educational, scientific or professional point of view. The only pity is that our work is not increasing with our knowledge.

And now turning to the prospect, the *role* of a prophet is rarely a wise one, but foresight is necessary to right action in the present, and judging from what we see now, we may safely say regarding the next ten years that there are some things certain, some probable, and many we know nothing about. I think the motor increase must be put down as a certainty. I think there is going to be more canine work, and I think its importance will be more appreciated by the profession as a whole. In cattle practice contagious abortion will probably be scheduled before long. The Departmental Committee advocated such action, and all country practitioners know what a big undertaking that will be.

*John's disease*, although very little known until recently, will also probably be scheduled before long,

and particularly if the work of Twort and Ingram proves to be correct, that they have discovered a reliable diagnostic agent similar to tuberculin. If that is true, there is nothing to prevent this disease being stamped out like glanders has been. Being a chronic disease young stock or animals in the early stages can be tested and got rid of whilst still useful for food purposes.

Tuberculosis one would think ought to be scheduled. We have thought that for so many years that one wonders if it ever will be scheduled. Probably it will, and will be dealt with through the Milk Bill through organised meat inspection, and by some method for dealing with the openly tuberculous animal.

Swine fever ought to be dealt with in more drastic fashion, but if not then it will remain as part of the work of the profession for many years to come. In connection with meat and milk, tuberculosis is the main issue, and will probably continue to provide considerable work for veterinary surgeons.

One important item in the prospect is the probable demand for county veterinary officers. In the recent report of the Departmental Committee on foot-and-mouth disease one of their strongest recommendations was that each local authority, or group of local authorities where they were small, should appoint a whole time veterinary surgeon, paid partly by the Imperial Government and partly by the local authority, to do the work of county veterinary officer.

So much for the state of things in 1898, in 1912, and the prospect for the future.

What about our policy?

First of all our *educational policy*. I think the veterinary profession can be said to be unique in the responsibility that falls upon the rank and file members with regard to the education of the profession. If you compare human medicine you will find there are Universities, conjoint Colleges of Surgeons and Physicians, the General Medical Council, and all these people are more or less educational experts. The rank and file medical man has practically no responsibility for the educational policy of his profession. The veterinary surgeon rank and file in virtue of our one-portal system are responsible for the education of the profession.

I think this is of great importance when we notice that a Departmental Committee was appointed a few weeks ago to inquire into the training and education of veterinary surgeons for the public services, and yet, very remarkably *not a single veterinary surgeon was put on the Committee*. That seems to me to have been a very serious omission.

Take the pre-graduate education to begin with. Our policy with regard to the preliminary certificate should be that we will put up with no lowering of the standard. I know I may be accused of saying something which might do harm to the schools. Well, the profession is greater than the schools, and the policy must be, *no lowering of the educational standard*. I remember teaching in an institution where there was no preliminary test. We had men from Eton, Harrow, and all the principal public schools, but they were not educated to anything like the pitch of the seventh standard schoolboys or of the students one would get at a veterinary college. That evil can easily come about in the veterinary profession unless we are determined that this standard shall not be lowered.

Next with regard to the curriculum and syllabus. They need revision, and I am glad to find that the Royal College of Veterinary Surgeons is at present engaged upon that revision. My advice to you is, *keep the Council up to its pledges*. I say this because, as a teacher, some were on ten years ago. I received a note from the then secretary to the Council asking me to put down on paper my ideas with regard to any amendment in the syllabus. I was responsible for teaching *materia medica* and hygiene, and I communicated with

Mr. Woods and other examiners for those subjects. Using our collective experience we formulated a scheme, the best in the opinion of teachers and examiners and sent it to the Council. I have no doubt other teachers and examiners took a similar amount of trouble, but when the subject was raised in the Council they simply passed a resolution that the papers be on the table, and so far as I know they are there yet.

Keep the Council up to its pledges!

With regard to the inspection of meat and milk, I see that Mr. Hunting in a recent address to the Southern Counties V.M.A. suggested that meat inspection was a speciality, and should be removed from the present curriculum which would not be much affected by the change. I do not agree with that. Constantly one is being asked by ordinary practitioners, not engaged specially in meat inspection, for information, either text books or procedure regarding meat inspection, because they are increasingly being invited by sanitary authorities to come in and act as experts. Every veterinary surgeon should be capable of carrying out this duty, and should be effectively trained and tested so that he can satisfactorily do the work.

As a teacher one has experience of the fact that medicine and meat inspection are at present lumped together in the examination. A student may be excellent in one and not in the other, and he will fail in both. So far as examination is concerned meat and milk are specialities, the examiners should be specialists in these subjects, and a special table should be created for them. Pupilage I do not think I dare say anything about, except that while recognising the tremendous value of practical experience it is like the suggestion of a five years' course, you have to consider the cost in money and the cost in time. I consider the greatest difficulty is in choosing the man to whom you will send your pupil. How long would it take any of you to find a suitable person to send your boy to? Many of the best men in the profession will not take pupils. Quite often the most unsuitable people are only too anxious to get them.

Coming to the subject of examinations and examiners, I think you may say that our present system is extravagant and costly, it is often inefficient, and sometimes unjust, and the greatest fault of all is that it does not stimulate the best schools with the best teachers. The school giving the best teaching does not get greater credit than the worst school.

I am convinced that teachers could be associated with external examiners as examiners of students, and the strongest argument with regard to that is that the Royal College of Veterinary Surgeons *stands practically alone in retaining purely external examiners* with no association of the teachers as co-examiners. Take the Universities, any science you like, or any other real examination based upon sound educational lines, and you will find that teachers are always associated with external examiners.

If you have got teachers in co-operation with the external examiners you will take account of the class work of the student. Each teacher in London could produce every year six monthly examination papers, written by each student during the year. One could give the percentage of marks obtained, and so indicate the men who had been working and those who had not. Every teacher knows the men who would benefit by being referred for another three months and those who ought to get through, but who may not shine in an examination. The day has gone by when the teachers in the veterinary schools should be thought of such poor calibre, or to be quite candid, such dishonourable people, that they may not be trusted in conducting examinations. The fact is that they are trusted in examining for University degrees. I have examined men for the

University of London, but I am not allowed to examine a man as to whether he can pass Class C or D.

I would suggest that the teachers of the various schools should nominate one of their number as an examiner in each subject, and the Council of the Royal College have an external man. This plan would save money for the Council, and secure a better examination for the student.

Post-graduate education. Is there any necessity for post-graduate education. If there were not any professional necessity, at any rate there is a public demand for it. I return to the report of the Departmental Committee on foot-and-mouth disease, and read this paragraph:—

"In considering the question of the qualification which should be possessed by veterinary inspectors the Committee are of opinion that, in view of the progress of veterinary science in its application to the control and eradication of contagious diseases, the subjects grouped under epizootiology can now only be adequately taught in post-graduate courses of a practical kind."

If I were allowed to put one of these words in italics it would be the word "practical." Then I might agree to some extent. But even with this amendment that statement needs a close scrutiny. What is there about foot-and-mouth disease which cannot be taught to a student preparing for the membership diploma, and what evidence is there that members, without post-graduate training, have failed to recognise the disease? A man can be, and ought to be, so trained for his diploma as to be able to deal with this or any other condition likely to be met with in every day practice. If he is not so taught the Royal College of Veterinary Surgeons should alter their system and see that the omission is repaired. Either the statement of this Committee should be challenged by the Royal College of Veterinary Surgeons or else the Council of the Royal College ought to be challenged to know why this state of things is allowed.

At the same time there is a legitimate field for advanced study and there are plenty of local authorities in the country who do ask for men with post-graduate training, and if there is that demand who shall supply it? In my opinion the Royal College of Veterinary Surgeons should undoubtedly supply the demand for post-graduate training just as they supply pre-graduate training.

The Royal Sanitary Institute examination in meat inspection is quite elementary, and would not be taken by veterinary surgeons except that authorities sometimes ask for it. The other post-graduate courses fail for one or more reasons. Some of them are lacking in practical veterinary teaching. Others are not followed by any examination or test, so that the certificates obtained are only in fact certificates of attendance and not of proficiency.

To be a credit to the profession, and to meet the public requirements, these post-graduate courses *must be standardised*. The students must be tested by expert examiners, and the whole of the arrangements must be made by the Royal College of Veterinary Surgeons.

Should there be a new diploma? Personally I think not. I think the Fellowship diploma would provide everything requisite if it were divided into sections similar to those of the M.D. degree in medicine. A medical man can take his degree in any one of several branches. Why should not our Fellowship be on the same lines, so that Public Health men, Board of Agriculture men, and specialists in any department could get a Fellowship in their own special branch of work, and one worthy of the name. I think there are men in this room who would sooner sit again for the Fellowship test than for their original Membership test, for the reason that the present Fellowship examination is

unworthy of the College. It has one good point—it does make a certain amount of money for the Royal College of Veterinary Surgeons. For these reasons I would not advocate a new diploma, but an improvement in the Fellowship, having it split up to cover the different branches of the profession's activities.

The defence of our privileges is a matter which calls for vigilance on the part of each member. We have to defend our title "veterinary" not only from quacks and charlatans, but from any in our own ranks who do it dishonour. We have to seek the removal of anomalous disabilities as for example the law which requires a veterinary meat inspector to be appointed under the name of "nuisance" inspector.

Our relations with other professions must be put on a fair basis, and whilst we must recognise the medical officer as the person primarily responsible for the guardianship of public health, we must demand adequate and reasonable recognition for our own members engaged in Public Health work. The Board of Agriculture in its zeal for the interests of the farmers must be required to deal fairly with our own profession, for no service will be done to agriculture by methods which do serious harm to veterinary surgeons.

Our Parliamentary Committee must be supported and encouraged to take action when Bills which threaten our privileges are before Parliament. Only united action will avail in such matters as relief from the Petrol and Motor taxes.

Finally, we must be prepared to help one another in defending unjust legal actions against our members. But there are some reforms so urgent that they may be called *reforms ready to hand*. I think the work done by the South Eastern V.A. in obtaining from the County Council reasonable payment for work done is a step in the right direction, and if something were done with the insurance companies that also would be useful work. Only a little while ago I heard of an insurance company which would accept a certificate from a quack—an unregistered man—for veterinary purposes. That simply means we are not holding the position which we ought to hold and to demand for ourselves.

I wonder whether veterinary surgeons recognise what is well recognised by other corporate bodies. The influence that men might have on Local Councils, Boards of Guardians, Borough and County Councils, etc., in aiding and doing good work for the profession. I have done work for the butchers' trade in connection with meat inspection, and the first thing asked by officials when there is trouble is, What sort of a Council have you got? Have you any members on the Public Health Committee? They at once want to know these things as a matter of legitimate trade defence. You may say butchers are in a different category from ourselves, but doctors do not despise having members of their profession on Town Councils and Public Health Committees, and further, everyone knows that in places other than the Courts, lawyers are well to the fore.

With respect to Tuberculosis we have a hard fight before us. Public opinion needs to be educated, we require the co-operation of the farmers and butchers, and then the authorities will probably begin to move. Of the necessity for action there can be no doubt. Even the Council of the Royal College of Veterinary Surgeons has at last been impelled to request the authorities to deal with "clinical tuberculosis."

The Anæsthetics Bill calls for some comment at the present time. This Bill is, in some measure, an insult to the profession, and the only question is—*Have we deserved it?* Each one of us has to answer that for himself. If the profession has deserved the insult it is for us to put the matter right, and then to demand that this kind of thing shall require the opinion of the veterinary profession—an organised profession—before being decided upon either in Parliament or anywhere else. First,

however, we must, if necessary, put our house in order.

I do not know whether we demanded representation on the Departmental Committee in regard to the training of veterinary surgeons, but we should have done so. I know perfectly well that if the medical profession had been treated in the same way there would have been a row.

And now I come to the subject of finance. Everyone knows what the present financial state of the Royal College of Veterinary Surgeons is. There is one most serious effect of this poverty. If you turn to the report on foot-and-mouth disease you will see the Committee say that a post-graduate course is recognised as being essential by the veterinary profession themselves, and is only not forthcoming because the Royal College has no money to finance it. I am not a member of the Council and cannot be supposed to know about this, but I do know that the "Fellowship" is a profit-making concern, and I think a divided "Fellowship" on new lines, even if cost a couple of hundred pounds to get a Charter, would be a profit making concern. The financial bogey is being put up on the part of some members of the Council to keep back the post-graduate course, but the financial question is not the serious item it is sometimes represented to be. I think it would be a reasonable and profitable speculation to spend £200 on Charter and take the fees and profits in return for two or three years. It should be done as capital expenditure, because *the time for action has come*, and other people are coming along with post-graduate courses and examinations, whereas all these should be regulated by the Royal College of Veterinary Surgeons.

There are two methods of dealing with an annual loss of money. One is to increase the income. Well, of course the Bill, whenever it gets through, and it has a better chance now than it ever had, will certainly do that. The "Fellowship" examination would also help to do it, if put on right lines. The other way is to lessen expenditure. I believe examination reform would lessen expenditure. I find that going through the figures for the number of students examined in 1860, 1890, and 1912, we were at the zenith in 1890, and big profits were being made. In the years 1860 and 1912 about the same number of students (a much smaller number) were examined, with this difference that 1912 showed a big loss and 1860 a profit. In 1860 the examiners *had only three places to go to* instead of five, and there were not so many of them, but the main thing is these five places. I think this should be remedied. All the students should be examined at one centre. By this means you would get a uniform test and you would discover the best schools and the best teachers. It might need an Act of Parliament, but it would be cheap at the price, in the interests of the profession, and in the interests of the teaching schools, although they do not sometimes see it.

To sum up, what is our policy? I think the policy is that of union, of co-operation. It is the "National" policy of which we have just got the machinery—the bare bones, the skeleton that wants clothing. The Council of the Royal College of Veterinary Surgeons has important functions to perform, but as with every body which has an official and legal *status*, its members are apt to become conservative. They ought to be conservative, but they need stimulus from outside from time to time. Very often the progressive members would like some backing from outside, and so you want an unofficial support of a progressive body outside, to energeise, stimulate and inspire the Royal College of Veterinary Surgeons. If you ask for evidence as to what united action on the part of the rank and file can do, I refer you to the doctors—members of the British Medical Association; or, in our own profession, to the Irishmen who have combined to obtain concessions from the Irish Local Government Board and the

Department of Agriculture, and to the men of Kent who have succeeded so well with their County Council.

The first thing then in connection with the National Veterinary Association should be union, and on this point I should like to say a word about the bodies outside. I think everybody will admit that the advance of the Army Veterinary Service was achieved by the profession as a whole. The advancement of the Veterinary Officers of Health, meat and dairy inspectors is also calculated to be obtained by the profession as a whole rather than by single bodies running on their own lines.

Unite the profession so that it can do the work of each section. Of course the "National" wants a permanent executive, and there, again, I urge members to be vocal until they get it. Let there be a permanent Secretary to do the work and deal with urgent questions that arise.

Would it not be well if we could amalgamate our Defence and Benevolent Funds and roll them into one. The sacrifice would be, I think, well worth while.

I shall not have many opportunities of contributing my share towards dealing with these problems over here, but I hope the time may come when we shall have a British Veterinary Association.

If I have to say no other word I would urge unity and co-operation of the members here and elsewhere in the interests and for the dignity of the profession as a whole.

The PRESIDENT said he was sure all had listened with keen attention to the address just delivered. The Association had honoured itself in inviting Professor Woodruff to come, and they thanked him for it. He

had given many things to think about and it was good to hear the views of a fresh mind and fresh ideas of an independent character.

Prof. SHARE-JONES proposed that as the matters brought forward required time for thought and discussion a special meeting should be held.

Mr. LLOYD seconded, and January 7th was decided upon.

Mr. RICHARDSON suggested that the meeting of the Northern Branch be held on the same day.

Mr. TAYLOR proposed a hearty vote of thanks to Prof. Woodruff for his address.—Mr. Wolstenholme seconded, and Mr. Abson supported.

Prof. WOODRUFF, in acknowledgment, said it was always a pleasure to go north, and especially to meet Lancashire men, because if hard knocks were given he might expect to get hard knocks in return. He wanted a plain straightforward discussion.

Mr. WOLSTENHOLME proposed and Mr. Hopkin seconded a vote of thanks to the retiring President for the kindly manner in which the business had been conducted during the last two years.

### The Problem of Bovine Tuberculosis.

When will the two great Departments, the Local Government Board and the Board of Agriculture, discover that bovine tuberculosis is not the product of the slaughterhouse, and that to remedy the evils complained of, the living subject must be dealt with? This first elementary principle is legislatively accepted by every country in the world but Great Britain, and yet we profess to lead the way in scientific sanitation!—*Meat Trades' Journal*.

### DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
U.K. BRITAIN.													
Week ended Dec. 28	14		14						56	132	7	32	433
Corresponding week in	1911		28				3	5			26	39	620
	1910	30		31			6	13			35	34	456
	1909	23		23			7	14			23	14	16
Total for 52 weeks, 1912	743		840		83	645	173	314	2871	6074	302	2920	39653
Corresponding period in	1911	908	1123		19	487	209	504			434	2466	30434
	1910	1465	1735		2	15	346	1002			514	1561	15123
	1909	1317	1698				533	1753			685	1650	14316

Board of Agriculture and Fisheries, Dec. 31, 1912.

Period.	Anthrax.								Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported													
IRELAND. Week ended Dec. 28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	16
Corresponding Week in	1911	...	...	...	...	...	...	...	...	...	...	...	...	...	2	9	5
	1910	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	74
	1909	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...
Total for 52 weeks, 1912	...	...	3	3	68	380	...	...	...	...	66	...	373	212	1691		
Corresponding period in	1911	...	9	16	...	...	2	3	60	...	342	175	2508				
	1910	...	7	13	...	...	1	2	65	...	467	96	2226				
	1909	...	8	8	...	...	...	...	75	...	424	88	1570				

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Dec. 30, 1912

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



## PARLIAMENTARY.

## THE INSPECTION OF IRISH CATTLE.

In the House of Commons on Monday, Dec. 30th, on the motion for the adjournment of the House, and in reply to Capt. Craig,

Mr. RUNCIMAN said that if they had had an inspection on this side of the animals that came over from Ireland as well as the inspection on the Irish side they would almost certainly have succeeded in stopping some of the animals which were subsequently found to have been in contact with infected animals before they had gone out to distant destinations in Yorkshire, the Midlands, and elsewhere, and he hoped they would have succeeded in preventing the very large number of outbreaks which had made this year rather a disastrous one for some farmers in many districts in England. The necessity for the double inspection was that they might not run in the future the risks which they incurred in the early weeks of July. The conditions under which the Irish cattle trade were carried on were a sufficient reason for taking precautions on this side as well as having an inspection on the Irish side. He was doing everything he could to restore the Irish cattle trade to its former prosperity, and he did not want to give any one the idea that in purchasing Irish animals they were running any undue risk.

## The M.O.H. to Inspect Cows.

"The Lord Mayor, Aldermen, and Citizens of the City and County Borough of Bradford in the West Riding of the County of York," have given statutory notice of intention to apply to Parliament for "powers."

Under the heading of "Milk Supply" occurs the following:—

"To authorise the Medical Officer in the case of any farm or dairy, whether within or without the city from which milk is produced or sent for sale within the city, to enter cowsheds and other buildings and to inspect cattle and to prevent the sale of, and to provide for the destruction of, infected, unclean or unwholesome milk.

To define the term "owner" used in the Dairies, Cowsheds and Milkshops Order, 1885, and the Dairies, Cowsheds and Milkshops Amending Order, 1886, and to provide that that expression shall have in those Orders the meaning assigned to that expression in the Public Health Act, 1875."

## R.A.S.E. and Swine Fever.

At the Annual General meeting of the Governors and Members held in the Club Room of the Royal Agricultural Hall, Islington, on Wednesday, December 11th, Lord Middleton (President), in the chair:—

Mr. THOMAS A. HUBAND referred to the question of swine fever in the country. They knew that a great deal had been done, but he thought that a great deal more might be done, particularly through the Council of the Society, in urging the Minister of Agriculture to take such steps as would be more satisfactory to the community. They once had a Minister of Agriculture who was brave enough to tackle the question of rabies, and he received—and always deserved—the gratitude of the whole country. They were all aware, he had no doubt, that the position of things with regard to swine fever was very much worse in the present year than it had been for a very long time past. There was a passage in the report saying that foot-and-mouth disease was the most serious consideration there was through-

out the year in regard to contagious diseases, but he thought they would all agree that the position with regard to swine plague was very much worse, and very much more important to the community than that of foot-and-mouth disease. (Cries of "No.") He hoped that the Council would give a little more attention to it, and take steps to induce the Board of Agriculture to take such measures as were recommended by their best advisers, so that they might be as successful with swine plague as they had been with regard to other diseases.

Lord NORTHBROOK, in reply, thought he might say, in the first place, they all agreed with Mr. Huband as to the exceedingly unsatisfactory condition of the country with regard to swine fever. He could assure him that the matter had the constant attention of the Council, and also of its Veterinary Committee. The Council had only that morning passed a resolution, which was to be forwarded to the Board of Agriculture, pointing out what they considered might be more effective steps in dealing with the matter, and urging the Board to take them into consideration with a view of giving effect to them. The Veterinary Sub-Committee had appointed a Sub-Committee, who were inquiring very fully into the matter, and receiving evidence from gentlemen in various parts of the country, and that Sub-Committee (of which he had the honour to be Chairman) hoped, and it was only a hope, that they might be able to throw some light on these difficulties, and give some assistance to the Board on the matter. He assured Mr. Huband that the matter had not been lost sight of by the Society.

## Sphincters of the Ileo-Cæcal Region.

To the Editor of the British Medical Journal.

Sir,—Since the publication of my demonstration on the nature of the caecum and appendix in the *Journal* of December 7th, my attention has been drawn to a well-known work on *Veterinary Physiology*, by Major-General F. Smith, C.B., C.M.G. (fourth edition, 1911).

Your readers will be interested to know that the author has recognized, independently of the observer cited in the abstract of my demonstration: (1) That there is a sphincter at the ileo-cæcal junction of the horse; (2) that it regulates the passage of the intestinal contents from the ileum into the caecum, and prevents the regurgitation of caecal contents into the ileum; (3) that there is a narrowing at the junction of the caecum and colon corresponding to what I have named the cæco-colic sphincteric tract; (4) that there is a mechanism by which the contents may pass direct from the ileum to the colon without entering the caecum; (5) that cæcal and colic digestion is mainly the result of bacterial action.

It is instructive to find that two men working independently—one at the digestion of the horse, the other at the anatomy of man—should reach conclusions which are so closely in harmony—I am, etc.,

ARTHUR KEITH.

Royal College of Surgeons of England,  
London, W.C., Dec. 19th.

## Personal.

## NEW YEAR HONOURS. KNIGHTS.

His Majesty has been pleased to confer the honour of Knighthood upon:—

\* \* \* \*

STEWART STOCKMAN, Esq., M.R.C.V.S., Chief Veterinary Officer to the Board of Agriculture and formerly Chief Veterinary Officer to the Transvaal; has made important contributions to the knowledge of diseases of farm stock.

## Reserve of Horses for Artillery.

The Army Council have announced their intention of giving an annual subsidy of £4 for a light type of van horse, suitable for Artillery purposes.

## OBITUARY.

THOMAS ELLIOTT, M.R.C.V.S., Cranbrook, Kent.  
Graduated, Lond: July, 1898.

Mr. Elliott died on Dec. 24th, from tubercular disease of the lungs. Aged 43 years.

JOHN LOVITT, M.R.C.V.S., Messingham, Lincoln.  
Edin: May, 1866.

Death occurred at his residence on Dec. 10th, at the age of 74.

HARRY WILLIAMS, M.R.C.V.S., Levenshulme, S. Manchester.  
Lond: March, 1896

Death took place on Dec. 21st, at the age of 46 years, from acute pulmonary tuberculosis.

## CORRESPONDENCE.

## VETERINARY HISTORY OF THE WAR IN SOUTH AFRICA.

Sir,

The history which you are publishing as a supplement to your journal is particularly interesting to such members of the profession as myself who volunteered our services to our country in the early "dark" days of the Boer War, but since it will be accepted as "official," being issued under the authority of the profession concerned, I think the Editor—whose name I have not at present heard—should be at least careful in obtaining correct information before issuing statements of facts and incidents, arrived at from reports or individual opinion.

When writing of the inefficiency of the Veterinary Service at the seat of war (p. 54) it is stated—"Another and equally futile organisation was that of the Imperial Yeomanry, and by the middle of April 4000 of these were available, and together with those still on the sea, were formed into 20 battalions, or about 10,000 men. The Regimental Veterinary Organisation brought from home at once collapsed, many of the officers were idle, while others did useful work, at their own request, in remount depots."

So far as my own experience goes upon the formation of the Imperial Yeomanry, there was no special organization of its veterinary officers, each battalion had its own, appointed as veterinary lieutenant, consequently there could be no "collapse"; as to "many of the officers being idle," although I met many of them both at the base (Maitland camp) and at the front, I never saw one who was not actively engaged upon the work of the particular battalion to which he belonged. There are many other mis-statements which I venture to think ought to be corrected, and many errors of omission; among the latter there is one which affects myself, and I hope you will allow me to mention it: In the last portion at present issued an account is given of "Wittebergen," "Surrender of Prinsloo." Now, as that was quite the best "show" I was fortunate enough to be engaged in throughout (and which one of the "bars" I received from our late King's hand, with the medal, bears corroboration of) I think my name should be among the veterinary officers who were present. I may say I have also the Mauser rifle, embellished with a gold plate, bearing the name "M. Prinsloo," "V.R.I.," which was brought in to the surrender camp afterwards, this I greatly treasure, and, I am told, others very much envy.—Yours very truly,

THOS. A. HURAND, Hon. Vet. Lieut. 1st Batt. I.Y.  
Kingsdown, Kent.

## FEES OF INSURANCE COMPANIES.

Dear Sir,

Having acted in the capacity of veterinary inspector and agent for a well known insurance company for the last eighteen years, I naturally am following the veterinary societies' discussions on the subject of increased fees for the examination of live stock, with great interest. While these discussions are going on among the societies I would suggest that you open the columns of *The Veterinary Record* and ventilate the matter there also, as a society which only meets quarterly is slower in its movements. I, for one, quite agree that the fees we are offered are ridiculous, though of course when one is working in the double capacity this is not so obvious.

I have, for a start, to make one suggestion: let the proposer for insurance pay half our fee and the insurance company the other half, as it is obvious that, owing to the low figure the premiums are quoted at, the companies cannot increase our fees up to the standard to which we are legally entitled, and let the fee be in proportion to the premium paid, and a proportionate rate for mileage as far as possible.

It stands to reason that the poor hawker insuring his pony for £12 (or less) cannot afford to pay a premium which would have to cover a V.S.'s fee of 5/-, whereas a wealthy breeder insuring a horse or brood mare for from £100 to £1000 could pay an extra fee in proportion, of course, to the premium.

Let me illustrate my point by giving one example of the lowest premium paid, quoting the scale of the particular company I represent—14/-—is the premium for a pony or horse up to (or under) £14 insured value.

Deduct 5/- off for veterinary examination and 2/- for agent's commission, that leaves exactly 7/- for the insurance company. Of course I am assuming the V.S. fee is increased; but even at the fee (3/-) which we get at present the company only gets 9/-.

Now it seems to me that the man who is willing to pay 14/- could easily be persuaded to pay another 2/6 if the thing was put to him in a reasonable way, and the facts explained to him. The Insurance Company would, of course, pay the other 2/6.

Again, take a farm horse insured under a lower table. If insured for £100 his premium is £4. Deducting 12 per cent. commission for agent (10/-) leaves £3 10s.; now the veterinary examination fee should be at least 10/6, if not a guinea. Surely the insurer would not object if an increase of 5/3 to 10/6 were added thereto, the company, of course, paying a like sum.

Of course there is another side of the question which we have not gone into. Who would pay the racket if we rejected the animal in question? We could scarcely expect the owner of the rejected animal to do so; we would naturally look to the Insurance Company to pay us full fee, and they ought to be glad to do so under the circumstances.

I think the halving of the fees is the fairest to all parties; it certainly should prevent this low form of black-legging referred to by Mr. Crowhurst. But perhaps now the ball has been set rolling we may keep it going till our unanimity of action is duly impressed on the Insurance Companies, whom I am convinced will meet us in a reasonable way, but we *must* be unanimous.—Yours truly,

"FAIRELAY."

## A CORRECTION.

In our "Personal" notes last week, it was stated that Mr. Hayhurst had been appointed "Chief Veterinary Superintendent to the City of London." This should have been "Superintendent and Veterinary Inspector at the Metropolitan Cattle Market, Islington." Although this appointment is in the hands of the City Authorities, the Inspector at Islington is actually the unpaid inspector of the L.C.C., since that body is the local authority for the Market. The present Chief Vet. Supt. to the City is Mr. T. D. Young.

We regret the oversight. The item did not come to us direct, and it ought to have been verified, but with Christmas in the middle of the week one does not verify much—except the whisky!



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1279

JANUARY 11, 1913

VOL. XXV.

## SIR STEWART STOCKMAN.

It has been well said that "Years are not the measure of experience." Stockman has only been a member of his profession for 23 years, but he has been almost providentially enabled to cram into that time a most extensive and varied experience. After taking his diploma in 1890 he availed himself of opportunities to act as assistant or locum tenens in two or three of the largest practices in the North, and so obtained practical experience of the ordinary everyday details of veterinary practices. Then he acted as teacher of pathology at Dick's College, and attained the position of an expert in this branch of science.

In 1901 he was appointed to the Indian Civil Veterinary Department, where Rinderpest and other cattle diseases enabled him to gain experience which was not available in this country.

A short residence in India was followed by his removal to South Africa, where again his experience of disease was widened, and he was brought into direct contact with Lord Milner. When Mr. Cope was retiring from the Board of Agriculture, it is said that Lord Onslow was looking for a first class man to take his place. He was told that some of the best veterinarians were to be found in the overseas dominions, and as he personally knew Lord Milner he cabled out to inquire if there was a man in South Africa to fill the place in Britain of Chief Veterinary Officer. Lord Milner replied that they had the very man, and so Stewart Stockman followed Mr. Cope at the Board of Agriculture. That the selection was a good one has been proved by results. If Stockman had never been abroad he would have seen little if anything of Rinderpest, Pleuro-pneumonia, and Foot-and-mouth disease, all of which had disappeared years ago from Great Britain.

Independently of his practical clinical knowledge of important diseases, Sir Stewart Stockman has always been a scientist—a practical bacteriologist—and he thus, by his opportunities and his acquirements, entered the Board of Agriculture well equipped for his work.

Since his appointment as Chief Veterinary Officer to the Board he has never slackened. In addition to his advisory and administrative work he has conducted researches into Scab, Anthrax, Glanders, Tuberculosis, Contagious abortion, and parasitic diseases of sheep and cattle. To each he has added knowledge or eliminated error.

As professional adviser to the Board he has recently had a trying time, for it must be remembered that upon his opinion depended action which affected the trade in animals all over the Kingdom.

The cost of the recent outbreaks of Foot-and-mouth disease has probably reached over £1,000,000, if we include loss of trade and stoppage of the export of cattle. This is a big burden to carry, and Stockman has successfully faced all the difficulties. We congratulate him upon his success, and acknowledge that no man has more deserved the honour of knighthood than he. Long may he be preserved to us to guide and direct the legislation against diseases of animals.

## THE DINNER TO PROF. WOODRUFF.

The complimentary dinner to Prof. Woodruff, held on Wednesday evening last at the Trocadero, proved a complete success. The attendance numbered about fifty, gathered from most parts of the country, and including teachers, examiners, and councilmen, as well as many private practitioners. Very appropriately, considering the interest that Prof. Woodruff has always taken in veterinary work in relation to public health, the Meat Trades' Federation and *The Meat Trades Journal* were both represented—the former by its secretary and past president. Otherwise, the gathering consisted almost exclusively of veterinary surgeons, assembled to bid farewell to a colleague and a friend.

The toast list was short, being limited to "The King" and "Our Guest." Mr. Hunting, the Chairman, in proposing the latter, paid well deserved tribute to Prof. Woodruff's professional and personal qualities alike—we all know both, so there is no need to epitomise the chairman's utterances. He concluded by performing a duty which had not been advertised—the presentation to the guest of a piece of plate, privately subscribed for by friends.

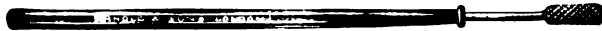
Prof. Woodruff's reply was delivered with the quiet sincerity that we have all learned to recognise as characteristic of the man. Not very lengthy, it was marked by felicity of expression and evidence of deep underlying feeling; and it struck the note that dominated the evening. The company was swayed by mixed feelings—regret that Woodruff was going, and cordial good wishes for his future. The speech, which showed that the regret was mutual, and reciprocated the good wishes, was in perfect sympathy with the prevailing mood.

During the evening a variety of voluntary contributions to its enjoyment were made. There were speeches from Mr. Lindsay, past President of the Meat Traders' Federation, who spoke of Professor Woodruff's assistance to meat salesmen in their past and present difficulties, and from Mr. Cherry, a Colonial graduate, who promised the guest a welcome in Australia.

Music and other entertainment was also provided by Messrs. Chamberlain, Woods, Peacey, Wooldridge, Carter, and last, but not least, by the guest himself, who, in addition to his other accomplishments, can sing a good song. With the singing of "Auld Lang Syne," a meeting of genuine good fellowship was brought to a close. Despite the undercurrent of regret that was never entirely absent, we think that the evening will always be a pleasant memory to one man in Australia, as it certainly will to many in England.

#### WOUND DRESSING INSTRUMENT.

With the advent of the Iodine treatment for wounds, the want of some small instrument for applying the same must have been felt by those who adopt this method of treatment. Herewith is a sketch of a "wound dressing instrument," made for me to my own design. A small piece of cotton wool or tow is wrapped round the roughened end



of the instrument, and the Tincture of iodine is applied therewith. I consider it meets a daily want in veterinary surgery, and that it will enable practitioners to adopt the Iodine treatment in a neat and aseptic manner.

The instrument is manufactured by Arnold and Sons, London.

W. A. PALLIN, Major, A.V.C.  
Harrismith, S. Africa.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### THE MALLEIN OPHTHALMO REACTION IN THE DIAGNOSIS OF GLANDERS.

Prof. Fröhner, of Berlin, has made a comparative study of the diagnostic value of mallein, used in three different ways—viz. the ophthalmic reaction, the cuti-reaction, and the ordinary method of subcutaneous injection, and records (*Monatsh. für prakt. tierh.*) his results. He concludes that the ophthalmic reaction is superior to the other two methods.

Fröhner's observations were carried out upon twenty-one glandered horses, and in very many cases healthy control animals were also used. The ophthalmic test was carried out as follows. The mallein used was composed of 0.05 gramme of Foth's dog mallein dissolved in 4.5 grammes of a  $\frac{1}{2}$  per cent. solution of phenic acid. Two drops of this solution were placed in the right eye of the horse, and at the same time two drops of a simple solution of  $\frac{1}{2}$  per cent. phenic acid (without mallein) were placed in the left eye. The same preparation of mallein was used for the cuti-reaction and the subcutaneous test. The former test was carried out by making two incisions (it is not stated how deep

these were) in the right side of the neck and rubbing the mallein solution into the inferior incision, while the mallein free solution of  $\frac{1}{2}$  per cent. phenic acid was rubbed into the superior one at the same time. The subcutaneous test was carried out in the ordinary way. In most cases two or all three tests were undertaken upon the same horse.

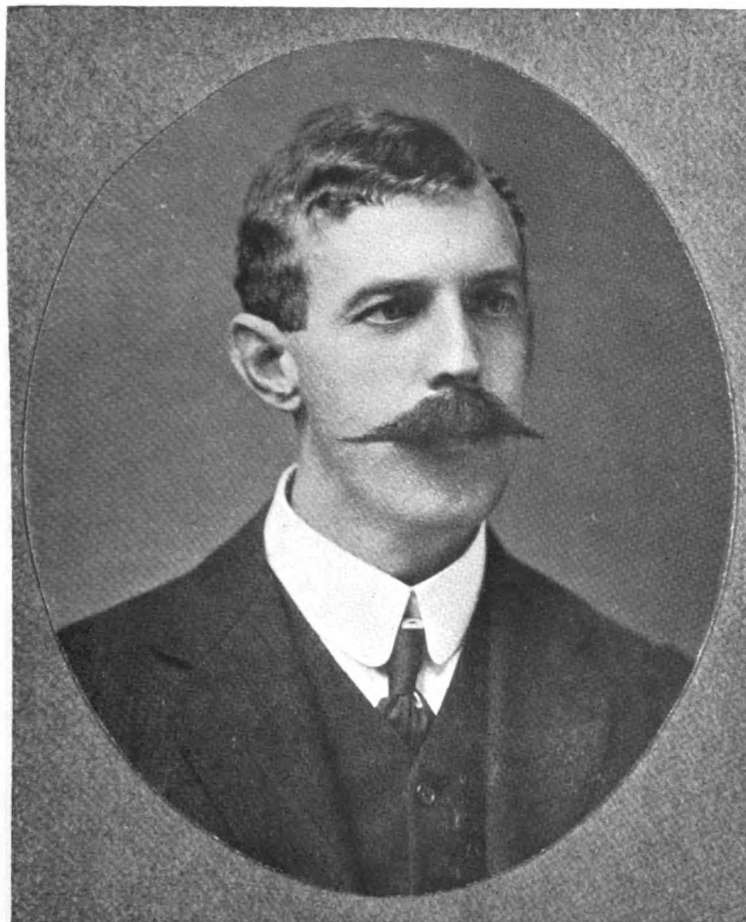
Summarising the results, the cuti-reaction proved very disappointing. Its result was absolutely negative in most cases, though the subjects were proved to be glandered post-mortem. The subcutaneous test gave good results, but the ophthalmic reaction gave even better. Twelve hours (in one case even five hours) after placing the mallein into the right eye, that eye showed a discharge which was usually distinctly purulent; while the left eye, into which the mallein-free phenic acid solution had been instilled, remained unaffected. The ophthalmic test yielded negative results when applied to non-glandered horses, as the subcutaneous injection of mallein does.

As the technique for the ophthalmic test is very simple, Fröhner suggests that in practice it should always be applied at the same time as the subcutaneous mallein test.—(*Annales de Méd. Vét.*)

##### ABSCESS OF THE LIVER AND THROMBOSIS OF THE POSTERIOR VENA CAVA IN CATTLE.

Wyssmann reports (*Schweizer Archiv.*) the case of a nine-year-old cow which died suddenly during the night, and which he examined post-mortem. The cow had given seven litres (about 12½ pints) of milk the evening before; and the sudden death had aroused a suspicion of anthrax.

The cadaver was lying on the left side, and a considerable quantity of white foam was found near the manger. The vulva had a blueish tint, and the rectum, which was partially everted, was sanguinolent. The jugular veins were considerably distended and very apparent. When incised they gave exit to imperfectly coagulated blood, the microscopic examination of which was negative so far as anthrax was concerned. The abdominal cavity contained several litres of a sero-sanguinolent exudate. The visceral peritoneum, the epiploon, and the rumen were beset with small dark-red proliferations; the rumen contained much alimentary matter, and showed an adhesion at the umbilical region. The intestine revealed no inflammatory lesions; while the spleen, which was a little augmented in volume, was softened and of a red-brown colour. The liver was tripled in volume, was gorged with blood, and showed some reddish yellow spots upon its surface; while its tissue was blackish red. The hepatic lymphatic glands were engorged, and the gall bladder was considerably distended. Several cicatricial depressions were noticed upon the diaphragmatic aspect of the liver; and an abscess, well isolated and containing yellow pus, was found in the hepatic tissue. The tissue of the edges of the liver was indurated, and there two abscesses were noticed. In the superior portion of these abscesses the posterior vena cava had contracted a very firm adhesion with the tissues and was thrombosed, having a thickness of four inches; its lumen was



SIR STEWART STOCKMAN. M.R.C.V.S.  
Chief Veterinary Officer, Board of Agriculture.



Barton with part of his Brigade was then left at Krugersdorp, and Hunter, taking Hart's Brigade, went to Heidelberg. The 10th Division was now non-existent, having shed its strength in occupying towns. Its progress across the southern half of the Western Transvaal was peaceful, and gave the authorities reason to believe that the people were tired of the war. As a matter of fact the war in the Western Transvaal had not yet begun.

The northern column, commanded by Baden-Powell, left Mafeking via Zeerust for Rustenburg (115 miles from Mafeking) where it arrived on 14th June. The road from Rustenburg to Pretoria, 60 miles, was not yet open, so that Hutton with his M.I. was sent on 14th June to drive away a commando blocking it. This he chased north, having previously met Baden-Powell at Commando Nek, 20 miles west of Pretoria. Hutton returned to the Cavalry Brigade on 20th, and Baden-Powell to Rustenburg.

The latter Commander was now to be largely reinforced from Rhodesia in order to pacify the country north of the Magaliesberg, and then to proceed to Warm Baths in the North of the Transvaal. The troops at Rustenburg included not only the Rhodesian force of Plumer, but also some New South Wales Bushmen from the Rhodesian Field Force.\* The horses belonging to the latter men were not well looked after, there were many sore backs of a serious kind, and the want of care shown by the Bushmen was greatly in contrast with that in the force under Baden-Powell, where inspection of backs was of daily occurrence. The veterinary work among the troops now collected at Rustenburg was divided between Captain J. Moore and Lieut. W. D. Smith. During this period glanders was discovered to be very prevalent among the animals captured or requisitioned from the enemy, and the greatest care had to be taken to weed out cases as discovered. Mange was less troublesome, though sufficiently in evidence. Liver trouble was frequent, especially, strange to say, among the horses of Plumer's old force which had now been serving a year. Capt. Moore found that these horses, which, it will be remembered were South Africans, were more liable to fail in their livers than in their limbs. Inasmuch as they were all immune against biliary fever the frequency of liver disorder is somewhat remarkable.

There is reason to think it was at this period of the war that cattle plague was introduced from Bechuanaland. Cases of a disease which could not be distinguished from it occurred on the Zeerust-Rustenburg road. Pestilence always follows or accompanies war, and completes the disintegration which both victor as well as vanquished are bound to experience in one or more forms. The general outbreak of cattle plague did not occur until 1901, and will be fully considered in due course.

On 2nd July, in pursuance of the general pacification scheme, Baden-Powell set out from Rustenburg for Pretoria, and after a heavy march of 42

miles reached Commando and Zilikats Neks (20 miles west of the Capital). † The following day it was reported from the squadron left behind at Rustenburg that the place was to be attacked. On 6th the whole force hurriedly returned, its important posts at Zilikats and Commando Neks being taken over by troops from Pretoria. It arrived at Rustenburg on 7th, but in the meantime the place had been attacked and the enemy driven off, mainly in consequence of a relief by two squadrons of Imperial Bushmen, who made a forced march from Ottoshoop, 42 miles west of Rustenburg, and arrived in time to attack the enemy in flank. The measures taken on a stormy night to get the sick and other animals out of Rustenburg before the place was attacked, led to many being lost. In the attack subsequently made the enemy entered the town, and amongst other losses inflicted captured the whole of the reserve of veterinary stores. On Baden-Powell's return the town was prepared for a siege. Commandos hung around—one at Oliphants Nek, the gate through the mountains leading into the southern part of the Transvaal, and another lay between Rustenburg and a small post on the Elands River, where an immense supply of stores had been collected, and was used as a forwarding depôt between Mafeking and Rustenburg. In preparing Rustenburg for defence, the rations of all animals were cut down, and all useless or doubtful horses were destroyed. The investment of Rustenburg was not seriously undertaken, but on 22nd July there was an engagement 12 miles west of the town, in which the enemy succeeded in stampeding or killing 240 horses after having ambushed the Australian Bushmen. Plumer took the pressure off them by operating from Rustenburg, but the road to Mafeking remained blocked, and the garrison of Elands River was still isolated.

The attack on Rustenburg on 7th July was the first step in the general conflagration about to burst in the Transvaal. It was the outcome of a deliberate policy instituted after the action at

† The Magaliesberg mountains, roughly running east and west across the Western Transvaal, will be so frequently referred to, that we may here note in the 90 miles of the western arm of the range there are but four passes capable of being used for wheeled traffic, two close together at the Pretoria or eastern end, Commando Nek and Zilikats Nek, and two at the Western or Rustenburg end, Oliphants Nek and Magatos Nek. Between Commando Nek and Oliphants Nek, a distance of 60 miles, there are only five cattle paths. The range cannot be crossed excepting by a De Wet. For many months after the events now being recorded, it offered a home and safe retreat to the "sniper," while the valleys sheltered his stock from view. So great became the annoyance caused in this way by the enemy, that the extraordinary undertaking of literally sweeping a mountain range had finally to be adopted, infantry on the top and sides and mounted troops below on either aspect, slowly cleared these mountains of all human beings and stock, and kept them clear by means of blockhouses. In all operations around the Magaliesberg the fact must not be lost sight of that the tracks were rough and difficult, and that there was no escape from them.

\* To be dealt with later.

Diamond Hill, in which General De la Rey was to return to his own part of the country and light the fire of guerilla war. The peaceful condition of the Western Transvaal when traversed in June by Hunter was intentionally misleading, and it succeeded; the storm which burst on 11th July was quite unexpected. Within a radius of about 30 miles from Pretoria four serious attacks were made, in only one of which were our troops successful. Three of these have already been mentioned (p. 83), the fourth has yet to be referred to. The veterinary interest in these, as in all operations, lies solely in the movements of troops and the extra work imposed upon their horses and transport animals.

Fifty miles S.E. of Rustenburg, to the south of the Magaliesburg, lies Krugersdorp. On 11th July it was decided to send Smith-Dorrien's Force, from Krugersdorp to Oliphants Nek, in order to relieve the pressure on Baden-Powell at Rustenburg, and so bring the enemy between two fires. Hardly, however, had the British Force left Krugersdorp than it was attacked by a commando waiting north of the town in the neighbourhood of the *Heekpoort Valley*. Our troops suffered a reverse and nearly lost their guns.

In consequence of this latter disaster Methuen, who was far away at Lindley in the Free State, marched to Kroonstad, and took train for Krugersdorp with his force, among others some 1200 mounted troops. It was a week before he arrived there, owing to congestion on the line, and his transport had to march. On reaching Krugersdorp he pushed on to Oliphants Nek (45 miles), where he defeated the enemy on 21st July, who was forced to retire through the pass, the opposite end of which it was directed should be closed by the troops from Rustenburg. But the combination failed and the commando escaped.

The day Methuen left Krugersdorp train wrecking began on the Potchefstroom line, so that immediately after the action at Oliphants Nek he was recalled to the line running between Krugersdorp and Potchefstroom, at which latter place he arrived on 30th July.

As an example of the work the horses and transport were called upon to perform, we may examine Methuen's movements for the next few days. We have seen (p. 87) that he went from Bothaville to Kroonstad, from there to the relief of the Yeomanry at Lindley, then to Heilbron endeavouring to deal with De Wet; back to Lindley, then to Krugersdorp; back to Potchefstroom. From Potchefstroom he was hurriedly called to the Vaal to block the drifts in the first De Wet hunt, from here he went streaming away obliquely across the Western Transvaal to the end of the Magaliesberg range, which he had only left a few days previously; he then turned west and cleared the country to Mafeking, which he reached on 28th August. This is a five weeks' record, exclusive of engagements, for one column only, and represents 1000 miles in a bee line on a flat surface. Chasing operations are more than ordinarily wasteful of animals. Drawn

from remount depôts and put to work the same day, they were soon spent; the sick and unfit with the troops could not be left behind, nor in many cases could they be driven forward, these were consequently destroyed to avoid their falling into the hands of the enemy, though with rest they would have recovered and returned to duty.

Lying between Zeerust and Rustenburg, on the road between these places, was a post known as *Elands River*. It was used as a depôt for stores which were being forwarded to Rustenburg from Mafeking, and also as a centre for policing the district. In command of it was Colonel Hore with 500 mounted men, composed of Australians of the various regiments of the late Rhodesian Field Force and South African Colonials. This isolated post on the veldt, 35 miles from Rustenburg and 45 miles from Zeerust, with its immense depôt of stores, was a tempting bait. On 1st August the Commander-in-Chief directed that it should be evacuated under the protection of a force commanded by General Carrington, which had arrived at Mafeking from Rhodesia. This force of 1000 mounted men, composed of Australians, New Zealanders, N.S.W. Imperial Bushmen, and four companies of Paget's Horse (I.Y.) moved out, and was at Zeerust on 2nd August, together with a large transport to remove the stores. Carrington, after meeting with considerable opposition, got within two miles of Hore's camp and then retired under further pressure. He returned to Zeerust, burned his stores, and was back at Mafeking by 10th August. Hore remained unrelieved. Almost simultaneously a force left Pretoria on 1st August, directed to open the Magaliesberg at Commando and Zilikats Neks, to make for Rustenburg, and bring back Baden-Powell's Force to Pretoria. This Force, under I. Hamilton, was 6000 strong, with two Mounted Brigades, and had just returned to Pretoria after the first stage in the Eastern advance resulting in the capture of Middelburg.\* On 2nd August Commando and Zilikats Neks were recaptured, having been in the possession of the enemy since 11th July, and on 5th August Hamilton was at Rustenburg. On 6th August firing was heard in the direction of Elands River, Baden-Powell with his own force and one of Hamilton's Mounted Brigades went halfway to Elands River, but as the sound of the firing became fainter he concluded that Carrington had relieved the garrison, and in consequence he returned to Rustenburg. Hamilton and Baden-Powell were now ordered on 7th August to evacuate Rustenburg and retire on Pretoria, which they reached on 9th. The Elands River garrison was left to its fate.

#### THE INVESTMENT OF ELANDS RIVER GARRISON.

The circumstances connected with this have been referred to above. At the time of the investment there were not only the horses of the garrison numbering 500, but the mules and oxen of the 80

\* This has yet to be described (see p. 94).

waggons parked at this depôt. The veterinary officer was Captain Fletcher of the West Australian Contingent. The camp was well supplied with food, but water was half a mile away, fortunately the water supply was protected by an outlying detachment. The first day of the siege, 4th August, no less than 475 animals were killed by shell and rifle fire, for cover for them was impossible. On the second day there were 52 killed an hour before dark. After five days bombardment, during which the enemy under De la Rey was considerably reinforced, the garrison was summoned to surrender and refused. The only chance of getting water was at night, and a fresh hour every night had to be employed, as the enemy discovered the time and place of watering and played on it with artillery and rifle fire. The stench arising from the dead animals, none of which could be moved, was appalling. The defenders never lost heart, they worried the enemy by unexpected night attacks, and though two forces advanced to their relief from opposite quarters and retired, they determined while food and ammunition lasted never to surrender. By a merely accidental circumstance they were relieved on 16th August by Lord Kitchener, after a forced march of 35 miles on leg-weary horses. This circumstance, as we know from p. 91, was the presence of the Cavalry Brigades in the neighbourhood in the chase after De Wet. The number of animals killed during the eleven days of the investment was 1329. The defence was a Colonial triumph. °

When the Force under I. Hamilton and Baden-Powell arrived at Commando Nek from Rustenburg on 9th August, the latter was left to garrison the two important passes, while Hamilton moving through the pass got to the south of the Magaliesberg Mountains where he heard of the De Wet hunt. Moving west he passed through the Hekpoort Valley and was in a favourable position to close Oliphants Nek to the pursued. As we now know, p. 91, he was late in so doing, and De Wet escaped.

Hamilton completed the circular tour of the Magaliesberg, by subsequently passing his force through the Nek he had been expected to close to De Wet, and on 18th August once more found himself near to Rustenburg. In this journey around the Magaliesberg his waggons were passing over rough broken ground, sandy channels and drifts, negotiating boulder strewn passes; the strain on the transport service was immense, and there was not much food. The horses on the return journey to Pretoria were reduced to 4lb. grain daily, though the farmhouses were still full of supplies, which were not permitted to be touched by our troops though the animals were practically starving. On the road from Rustenburg to Pretoria

Hamilton, hearing that De Wet had gone north, followed him. On 19th August the pursuit could make no headway owing to a rearguard action. It was during this time De Wet broke back and passed between the two arms of Hamilton's column, which were a few miles apart, and scaled the Magaliesberg (p. 92). On 20th Hamilton was able to push on, and moved rapidly to Pienaars River Station. On 22nd the pursuit had reached Zwartboois Location, finally on 28th Warm Baths (60 miles north of Pretoria) was reached, and here it ended.

Hamilton then returned to Pretoria. The movements of his force since 23rd July are worth recapitulating, as evidence of the wear and tear to which animals are exposed in war. On 23rd July it marched to Middelburg, arriving on 26th; it was then hurriedly entrained for Pretoria. On 1st August it marched along the north of the Magaliesberg to relieve Baden-Powell at Rustenburg. On 9th it was back close to Pretoria, and passing through Commando Nek went along the south of the mountain range, once more to near Rustenburg. On 18th it had nearly reached Pretoria, when, hearing of De Wet's supposed escape north, it pursued for the next ten days, and finally returned to Pretoria. We have seen the character of the weather, the nature of the roads, and the state of the forage supply during these marches, the distance of which amount to 450 miles on a flat surface, measured in a straight line.

The condition of the Yeomanry horses on their return to Pretoria at the end of the pursuit is well described in the "Records of the Rough Riders." \* "The horses were now thoroughly exhausted owing to starvation and hard work; during the last day's march most of them had to be led. The 72nd Company was reduced to 12 mounted men, the others being obliged to lead their horses and nurse them as well as possible under the circumstances. Many of the horses had died. The state of 79th Company was almost as bad . . . the troopers were as worn as their horses, indeed it was often a hard job to lift the saddle on to the horse's back."

It is evident that every mile that horses and transport animals can be spared is something placed to their credit. There were many useless miles travelled in the De Wet hunts.

Hamilton's was not the only column which believed it was following the fugitive north. Both Baden-Powell and Hickman joined Paget just north of Pretoria. † Hamilton moved on the west of the railway, Paget consequently kept to the east. There was fighting nearly every day; on 21st August Pienaars Station was occupied. On 22nd the mounted troops were pushed on to Warmbaths, which involved a twenty-two mile march over a waterless desert. On 26th Nylstroom (90 miles north of Pretoria) was occupied, and the force with Baden-Powell finding itself between two bodies of the enemy retired. On 27th it returned

\* "Times History," Vol. iv., p. 429, which rightly adds that the example shown by these splendid men, at a time when surrenders and retreats were not sufficiently rare, was even more important than the position they held.

\* Captain H. G. M'Kenzie Rew, 1907.

† When we last met Paget's force it was fighting around Bethlehem. After the surrender of Prinsloo it was brought to Pretoria.

to Warmbaths, as by this time it was known that De Wet was not in front of them. Subsequently, Paget's force was cut off for a day or two at Warmbaths and attacked. The attack was driven off, and the force returned south towards Pretoria. On its way it was charged with the work of clearing the fertile valley in which the town of Hebron lies. All stock was carried off, crops and irrigation works destroyed, and farms blown up.

There were 2800 mounted men engaged in this pursuit, and the wear and tear of animals was considerable. In addition the thorns of the bush country caused many cases of quittor.

Before taking up the question of the general advance eastward from Pretoria, it is necessary to clear up the movements of the 2nd and 3rd Cavalry Brigades and Colonial Division which chased De Wet from the vicinity of Bethlehem to the end of the Magaliesburg. Both, as we have seen, took part in the forced march to Elands River. The 2nd Cavalry Brigade then returned to Krugersdorp, and on its way just missed De Wet, who had escaped over the Magaliesberg and was making south (p. 92.)\* The 3rd Cavalry Brigade and Colonial Division had a more eventful return. In the first place they accompanied Lord Methuen from Elands River to Zeerust. At Zeerust Methuen proceeded to Mafeking, the force filled up with supplies, and then turned in the opposite direction, the objective being Krugersdorp 120 miles distant. At this time the strength of the 3rd Cavalry Brigade was 300 horses, not that of a single regiment. Between the 18th July, when it joined in the chase after De Wet, to the 25th August, the date of leaving Zeerust, the strength had fallen from 700 to 320 horses.† The loss in the Cavalry Division during the same period is unknown. On the day the Force left Zeerust it was attacked with loss; again the following day. On 31st it was seriously engaged with De la Rey with relatively heavy loss, and until it reached Krugersdorp on 1st September it daily had to fight for the road. Cases of "tulp" poisoning were frequent during this harassing march, and some fifteen horses and mules had to be treated by puncturing the intestines. Under the conditions narrated, even ordinary surgical precautions were out of the question; happily the soiled trocar gave rise to no bad effects.‡

\* By error 3rd for 2nd Cavalry Brigade has been quoted at p. 92.

† A detailed account of the losses of this Brigade will be found later in the statistical portion of the first part of this History.

‡ Communicated by Lieut. (now Major) F. W. Hunt, A.V.C., who, together with C.V. Surgeons Taylor and Phelan, was present during these operations.

### *EASTERN TRANSVAAL.*

#### *ADVANCE TO KOOMATI POORT.*

*OPERATIONS PRETORIA TO MIDDELBURG,  
JULY, 1900.*

The events preceding the advance on Middelburg were last considered at pp. 81-84. From that point the narrative must be taken up. The projected move to the east had been delayed in consequence of the repeated attacks on Pretoria and the trouble De Wet was giving in the Orange Free State. It was now fixed to begin on 23rd July, a wide sweeping movement taking place, the line of advance being 35 miles long from where General Hamilton was joining it from the north to the 1st and 4th Cavalry Brigades and Mounted Infantry with General French on the south. It rained all night, and the morning of the 23rd was cold, a heavy mist hung like a pall over everything. In the scheme the Cavalry and Mounted Infantry had to get around the enemy's left flank, and the 4th Brigade pushed on and did 23 miles. On 24th the advance was continued, there being but slight opposition, and another 20 miles were accomplished. On the evening of the 25th Middelburg was in sight, and the enemy could be seen streaming away to and through the town, but too far away to be interfered with. During that night a tempest of extraordinary violence raged; it rained furiously, and the temperature fell very low. Men and animals were exposed to the full fury without any kind of shelter; in consequence "the transport animals perished by hundreds, in many places whole spans of oxen and mules lay heaped together killed by the severity of the weather.\* Provided animals are in good condition and well fed no adverse conditions of weather affect them. Cold, rain, wind, tempest, are powerless to cause a single death from exposure. But when animals are semi-starved they succumb to cold on wet nights in the most remarkable manner. The transport, since leaving Pretoria, had marched over a burned country, on which every particle of vegetation had been destroyed, there was no hay, and only 5 lb. of mealies were allowed the mules. Nor had they come from a land of plenty, there was no grazing around Pretoria, but the grain ration allowed was better. Similarly, the horses were placed on reduced rations the moment the forward movement was made. They worked on 10 lb. corn and such oat or manna hay as could be picked up in a country robbed of its supplies. Even the corn ration was not above reproach, much of it was musty. This may or may not have been due to getting wet in the waggons, but there is a widely-spread feeling that it was musty when received.

On 26th July Middelburg was occupied, and General Hamilton's force returned to Pretoria in connection with the Relief of Rustenburg (p. 94).

\* "Official History of the War," Vol. III., p. 322.

An officer and three men of a Highland Regiment also died from exposure. The troops had to remain standing all night, frequently knee-deep in water.



On the occupation of Middelburg Captain Blenkinsop, S.V.O. Cavalry Division, set to work to open a veterinary hospital. Here, as at Bloemfontein, Kroonstad, and Pretoria, a hospital had to be created out of what could be found. All the rope in the town was commandeered; the farriers made picketting pegs in the local forges, the chemist of the place helped to eke out the regimental supplies; spades, pickaxes, lanterns, buckets, etc., were purchased in the town, and a site for the hospital selected near the railway station where there was a good water supply and store accommodation. On 29th July the hospital was opened, and once more a Civil Veterinary Surgeon had to be placed in charge, but under the guidance of Capt. Blenkinsop, S.V.O. C.V.S. Brownless worked hard and creditably. Attendance on the sick was furnished by the Cavalry in the proportion of one man to every four horses.

The Cavalry admissions as the result of the operations amounted to 349 horses, contributed as follows:—

1st Cavalry Brigade	149
4th " "	173
Other Units " "	27
	<hr/> 349

The Mounted Infantry casualties are unknown. In addition to the above, 108 horses were left dead or abandoned on the veldt, so that three days work with very little opposition cost the Cavalry 400 horses, or 130 horses a day! All this was due to unconditioned remounts being employed, and attempting to make war with unfit and underfed horses.

Up to the 31st July the total admissions to hospital at Middelburg were 451 horses. These cases were made up as follows:—

Sore Backs	276	{ of which 28 had to be destroyed on account of their severity.
Lameness	76	
Exhaustion and Debility	69	
Various	30	
	<hr/> 451	

Sixty-nine animals were destroyed from the following causes:—

Sore Backs	28	Glanders	4
Debility	27	Mange	5
Lameness	3	Various	2

The Mounted Infantry, as elsewhere, sent very few animals to hospital for the reason they could not spare men from the fighting line to look after them, their sick were consequently abandoned.

Many remounts joined the Force at Middelburg. They were mostly Hungarians, but all so hopelessly out of condition that they were killed or rendered ill by merely carrying their own weight. For example, on 25th July 160 remounts joined, having marched from Pretoria; they left 20 behind them on the veldt suffering from laminitis and exhaustion, and none of these had carried a man or saddle. On 30th, 63 remounts arrived, of which 20

were sent to hospital; on 31st, 125 arrived, of which 24 were sick.

The system of advance now being followed was established subsequently to the Modder River—Bloemfontein operations. It consisted in making a "spring," in so doing using up the horses; then a halt to allow of fresh and equally worthless\* animals to arrive, followed by another "spring" and so on. No other nation in the world could have afforded to make war on such lines as these. All the horses so expended were not of course killed, but the majority of the survivors were rendered useless for weeks and months. In the meantime they had to be cared for in an enemy's country, with no supplies, and with no opportunity for being "turned out," for it was unsafe to allow them beyond the outpost line. The only thing to be done was to send them south into Cape Colony, and later into Natal. Hundreds never left the trains alive, or only to be shot at their destination. Thousands were placed on farms in the Cape which they congested, and, in, consequence failed to make headway through want of grazing. Here they infected each other with glanders and mange until every farm in the Cape became a hot-bed of these diseases. We do not know what proportion of the horses so sent to debility farms ever rejoined the ranks, but should think that one half was an outside estimate.

In the meantime thousands of fresh animals were being imported to bring up depleted regiments to strength. These, in turn, were worked at once, killed off or incapacitated within a few hours, or at the outside a few days after active operations, and so the vicious circle was maintained. At this period of the war the root and branch of this ruinous waste of horses was the starvation of the horses in February, 1900.

During the fortnight the troops were occupying Middelburg, they held a line of forty miles thrown out obliquely in front of the town, and were engaged in watching every movement in the direction of Belfast, the objective of the next operations. This line kept the troops on the move, led to frequent outpost affairs, and gave the horses very little rest. In the meantime, the Natal army was marching across the Eastern Transvaal from Paardekop, in order to join up with the force of Lord Roberts in the vicinity of Wonderfontein, for an united attack on the strong position of Belfast.

With the advent of the rains the new grass was springing up, and with it the bright green attractive leaves of the poisonous "tulp." Very many cases of poisoning occurred through neglect of preventive measures. Tulp only grows in water courses and low lying ground. If this is avoided for grazing purposes, the risk of poisoning is greatly minimised. On 10th August, fifteen horses of the 85th Battery at Oliphant's River were attacked and eight soon died. A few days later at Belfast the 7th Dragoon

\* The term worthless is employed here in the sense of being worthless for work.

Guards lost eighteen out of twenty-five horses attacked, and many transport mules were poisoned. Of course, this is only a fraction of the losses occurring all over the area of operations, but these numbers give some notion of the disastrous results of consuming "tulp."

On 13th August Major Bostock, A.V.D., arrived at Middelburg and took over charge of the Veterinary Hospital. Up to this date there had been in sixteen days 961 horses and 94 mules admitted to treatment. Of these, 158 were discharged to duty, 379 were sent to Pretoria for disposal, 10 died, 112 destroyed, 302 remained under treatment.

The hospital was worth all the trouble its creation out of nothing had caused, by saving and restoring to duty 158 horses in a fortnight.

#### OPERATIONS BELFAST TO KOOMATI POORT.

AUGUST-SEPTEMBER, 1900.

During the first half of August a general slow advance of the force had been made in the direction of Belfast; there was no hurry, for two more forces were required before Belfast could be attacked, *i.e.*, the one from Natal under General Buller, and the other under General I. Hamilton, who, as we know, was in the Magaliesberg in connection with the chase after General De Wet.

On 18th August, General French left Middelburg for a point 15 miles south of Wonderfontein. In the vicinity of Wonderfontein were his two Cavalry Brigades, the horses of which had obtained several days' rest. It had been arranged to increase the forage ration, and endeavour, as far as possible, to prepare these animals for the hard work which lay ahead. Unfortunately, owing to an error, the hay ration of 5 lb., which was all that could be allowed, was not issued, and in its place there was nothing but grazing over a partially burned sour veldt. The material at this time of the year afforded little nourishment, while the grazing was dangerous owing to the young "tulp." Nevertheless, the condition of the horses of the 1st and 4th Brigades, the only two at this time with General French, improved under the influence of rest. Cases of glanders continued to occur among them from time to time. The condition of the transport mules left much to be desired, their work was continuous, their grain allowance of 5 lb. mealies quite insufficient; it was evident that many were past repair, and the whole required a rest, which was impossible. Their weak state was a cause of great anxiety, and was increased by the presence of mange in the 4th Brigade. The ox transport, which was assisting them, was little better; pleuro-pneumonia existed among the animals, and the indifference and ignorance of the conductors in charge prevented early measures of isolation being adopted.

We have now to consider the junction of General Buller with the force under Lord Roberts.

#### GENERAL BULLER'S ADVANCE FROM NATAL TO BELFAST.

Considerable delay had occurred before the Natal Army was able to leave the railway, advance north into the heart of the enemy's country, and make for the Delagoa line in the vicinity of Belfast. The distance from the Natal border to Belfast is 100 miles, but it was known that supplies were unobtainable on the road and the whole country hostile. Everything required had to be carried with it, consisting of fourteen days supplies for the men and eleven days forage for the animals.

Buller's force consisted of a Cavalry Brigade, a Mounted Brigade of irregular troops, and a Division of Infantry, a total of 11,000 men and 3000 horses. The transport, exclusive of technical vehicles, *i.e.*, ambulances, ammunition waggons, engineers' stores, water carts, etc., amounted to 451 mule waggons drawn by 4500 mules, and 304 ox waggons with 5000 oxen. The veterinary service was represented by B Section No. 6 Indian Veterinary Hospital, and Captain C. B. Harris was the S.V.O. of the Force. \* The troops mobilised at Paardekop, and in their passage across the Transvaal did not meet with much opposition owing to their strength. The enemy was all around, but the waters opened out and received them, closing in again on their rear.

The route to Belfast lay *via* Ermelo and Carolina to Twyfelaar, 20 miles south of Wonderfontein, where the junction with the force of Lord Roberts was to take place prior to the combined advance on Belfast. Seven marching days were occupied in getting to Twyfelaar, and in this time 200 oxen died on the road, though mainly from "tulp" poisoning. On arriving at Twyfelaar on 14th August, in spite of the long pull of 100 miles, all the animals presented a great contrast in condition to those of Lord Roberts.

#### OPERATIONS GELUK, BERGENDAL, BELFAST.

AUGUST, 1900.

On 21st August there were operations south of Belfast at Van Wyk's Vlei. In this vicinity the transport had a severe time owing to the drifts and boggy ground in the neighbourhood of Belfast. On 23rd the combined forces of Generals Buller and French were engaged at *Geluk*, a point still nearer to Belfast. † On 26th Lord Roberts arrived

\* The following veterinary officers were also present: Lieut. C. Wilson, Lieut. Coley, C. V. Surgeons Hylton-Jolliffe, Pollard and Malone. The names of the officers with the Irregular Forces are unknown, excepting that of Captain Steele with the South African Light Horse.

† At Belfast the country to the north and east undergoes a great change, becoming greatly broken, mountainous, and the rolling veldt disappears. At Waterval Boven, a little further east, a remarkable change in altitude occurs, the railway suddenly drops 900 feet into the low veldt, which extends for 200 miles to the sea. The low veldt is hot, muggy, and very unhealthy at certain periods of the year. The table land lies at varying distances from the coast. We shall see later how General French took his cavalry by a goat path from the high table land of the Transvaal to the hot, steaming, fever haunted valley of Barberton 3000 feet below.

at Belfast with reinforcements. It was decided to press the enemy east beyond Machadodorp by attacking him at Dalmanutha on the left, and outflanking him on the right. The former work fell to General Buller, who on 27th fought at *Bergendal* and drove in the Republican left flank after a heroic resistance.

Bergendal was a natural fortress of granite boulder "of immense size and as adroitly placed by nature as ever by the most careful science of the military engineer." ("Official History," Vol. iii., p. 396). Into this fortress Botha placed 70 men of the Johannesburg Police, the hardest fighting material in his force, the majority of whom were foreigners. Buller turned forty guns on to this pile of rock, and for three successive hours it was submitted to lyddite sandwiched with shrapnel, until the place, as the "Times History," vol. iii., p. 452, describes it, looked like Vesuvius in eruption. "No such severe and concentrated fire had been witnessed since the days of Vaal Krantz and Pieters Hill." The magnificent men within were well under cover. "The great boulders which shut them in cracked under the blows of projectiles designed for the bursting of armour of battleships," and every splinter from this acted like a fragment of shell. Still the police gave no sign of life nor of surrender. A double and converging assault by the infantry was now ordered, and the seventy men within, in spite of the nerve shattering trial to which they had been exposed for long hours, managed to kill 13 and wound 68 of our men before the place was captured. Of the 74 police 42 were killed, wounded or captured.

The enemy's position ran north for miles in the direction of Lydenburg, and General French led his cavalry through country such as they had not previously seen. "Precipitous hills bounded the view on every side, growing only more rugged in the direction of the general advance. Such a terrain but a few years earlier might have kept mounted troops tied fast to the infantry."\* It took three days for the cavalry to get around this extended flank owing to the natural difficulties of these mountains. On 28th they were north of Dalmanutha, and on the 29th reached Helvetia, a position in rear of the one occupied by the Republican forces on the 27th. Here French joined hands with Buller. The enemy, however, had fled. It is difficult to realise that the road taken by the cavalry to Helvetia was a mere tortuous cattle track over the mountains, lying high among the deep valleys, and commanded by other heights which had to be occupied before it could be used. Beyond Helvetia the country became still more difficult, and the object now was to release the prisoners at Nootgedacht, a few miles away as the crow flies, but situated in a perfectly inaccessible country for cavalry. The precipices and ravines confronting General French showed him that his only path to Nootgedacht lay along the railway track and this was commanded by snipers. The railway track at this part is so steep that a cog-wheel line is used for the ascent which is 1 in 8. Fortunately, the spontaneous release of the prisoners spared the cavalry proceeding any further than Waterval Under, and General French turned back and proceeded to Machadodorp, a town lying to the west of Belfast.

The following Veterinary Officers were present in the operations around Belfast:—Captains Blenkinsop, D.S.O., Richardson; Lieuts. Sawyer, C. B. Harris, F. W. Wilson, Cochrane, Todd, Griffiths, Coley; C. V. S. Fisher, Head, Hylton-Joliffe, Orton, Roberts, Pollard, Malone, and others whose names are unknown.

The result of the general operations just referred to was the dissolution of the Republican Forces as an organised body. The northern commandos under Botha streamed away through Machadodorp and Helvetia to the almost inaccessible regions in the vicinity of Lydenburg. The commandos from the south went south of the line into the extremely difficult Kaapsche Hoop Mountains, others remained on the railway to offer resistance, but primarily to destroy the line, rolling stock, and military stores. At this period, for the first time in the history of the campaign, the enemy found a difficulty in supplying themselves with horses.†

The aged President was living on the railway and was hurried in the direction of Koomati Poort; he shortly left for Europe. This, however, was not known at the time, it was believed he had gone north of Lydenburg, and in the subsequent operations the capture of the President and of Botha was one of the duties allotted to Buller's force.

Buller was now ordered to the almost inaccessible region of Lydenburg, a route of remarkable difficulty, and bristling with strong defensive positions. Hutton's M.I. was kept south of the line, its objective being the Kaapsche Hoop Mountains in the direction of Barberton. French was to make for Barberton, his left flank being protected by Hutton. His road lay over the mountains and was full of difficulties. The 11th Division, under Pole-Carew, was in the centre, and made direct for Koomati Poort, following as far as possible the line of rail. This broad sweeping movement, which, from end to end was 70 miles in length, was rendered one of extraordinary difficulty owing to the configuration of the country; consequently, it was terribly severe on the animals. Each of these separate operations of the one big scheme will now be briefly glanced at.

#### THE LYDENBURG OPERATIONS,

SEPTEMBER-OCTOBER, 1900.

Buller left Helvetia for Lydenburg on 1st September, on the 2nd he was opposed in a formidable position, against which he could make little headway, and asked for assistance. Hamilton, who had just returned from the Magaliesberg operations connected with De Wet, was accordingly sent from Belfast in the direction of Lydenburg, by a road which would bring him on the flank and behind the enemy opposing Buller. He was given the Cavalry with Buller, and on 6th September was in a position to co-operate with him, but Botha with-

\* "Official History of the War," Vol. III., p. 393.

† "Times History," Vol. IV., p. 473.

drew, and the Cavalry with Hamilton and Mounted Brigade with Buller rode into Lydenburg the same day.

On 8th September Buller and Hamilton attacked Paardeplaats, and Botha retired through Spitz Kop (a position to the west of Lydenburg) to the railway at Nelspruit, leaving a rearguard to dispute the passage with Buller. Hamilton with his force was now recalled to the line of rail. On the 9th Buller attacked the enemy at Mauchberg, which lies between Lydenburg and Spitz Kop; at first it was thought he had the whole of the enemy's convoy within his grasp. The South African Light Horse raced down the hill to capture it, and then found a ridge between them and the convoy held by the enemy, and the whole convoy got safely away. On 11th September Buller occupied Spitz Kop. It was known that Botha and Steyn were now making for the high veldt and must pass close to Spitz Kop. There were only two passes by which escape was possible, but the number of men with Buller was insufficient to block all points leading to them. Buller, through getting late information, missed Botha at Burghers Pass, though he could see the dust of his waggons. Steyn had already got through, together with an escort of 250 men with many spare horses, and treasure to the amount of £500,000.

The Field Veterinary Hospital with Buller's Force on arriving at Belfast discharged its sick by sending them back by rail to Middleburg, the hospital then proceeded to Helvetia, where it arrived on 11th September, and waited to proceed by the next convoy to Lydenburg. On 15th it arrived there and took over the sick which had been collected at that town. The military operations had been very severe on the animals. In the Remount Depot which had been formed there were no less than 2000 sick, including 110 with mange. Major Bostock, who had now been appointed S.V.O. of the Eastern Transvaal, found these cases at his inspection, and had 150 of the most hopeless destroyed. In the Veterinary Hospital there were 150 sick, mainly sore backs, lameness and mange, of which 32 were destroyed as being unable to move when the place was evacuated on 8th October.

The animals at duty were showing the effects of the severe work they had undergone in this excessively difficult country. The 1st Cavalry Brigade of Natal was only 718 strong, and had 93 sick horses under treatment regimentally. Many of these were sore backs, a few gunshot wounds, mange, and one or two suspicious of glanders. The rations allowed at this time were 9lb. oats and such grazing as they could obtain in the intervals of military operations. On 29th September a batch of remounts arrived at Lydenburg from Pretoria. It is a matter of interest to see how these animals fared.

Number leaving Pretoria	Horses 681	Mules 500
„ arriving at Lydenburg	„ 195	„ 229
Deficit	486	371

The deficit was made up as follows:

	Horses.	Mules.
Issued for duty at Middelburg, Belfast, and Machadodorp	39	40
Sick left at the above places	160	—
Died on the road	8	6
Destroyed for broken legs and injuries	1	5
„ „ mange	17	6
	225	57

This leaves 261 horses and 214 mules unaccounted for, lost on the road! On arrival at Lydenburg the animals were poor in condition and showed the neglect to which they had been exposed; many of them had sore backs which had never been dressed or attended to. The troop horses in the ranks could not have given worse results than those furnished by supposed fresh unworked animals. The number of mange cases will not escape observation; to have mange sent from remount depôts to regiments was a new experience. A further analysis of 50 sick animals left at one station is available:—

21 were destroyed
3 died
23 suffered from sore backs, debility, and lameness
3 issued for duty
50

Of 50 animals half were destroyed or died, nearly a half was useless from debility and sore backs, and only 6% were issued for duty. A lamentable record!

After the escape of Botha and Steyn, Buller made a circular march by Spitz Kop, Pilgrim's Rest, and Kruger's Port, back to Lydenburg. The Natal Cavalry Brigade remained at Lydenburg; the mounted troops, exclusive of Artillery, which accompanied him, consisted of Strathcona's Horse, the South African Light Horse, and an M.I. Regiment. With this force he marched through a mountainous country full of defiles and valleys, together with terrific gradients. Mounted troops scrambled over mountain ranges, infantry scaled vertical heights, and transport animals were worked to death over mountain paths. On arriving back at Lydenburg, after what may be considered a fruitless journey, the condition of the animals was naturally bad. There were many sore backs. The shoeing was neglected, shoes and nails were short, and the S.A. Light Horse was positively without either.

Buller's force left Lydenburg on 9th October, and on 11th October was back at Machadodorp, where it was broken up, and General Buller returned home.

The following veterinary officers were present in the Lydenburg operations:—Major Bostock, Lieuts. C. B. Harris, E. W. Wilson, Cochrane, Coley, C.V.S. Malone, Pollard and Evershed.

not, however, completely obliterated. The lungs were tripled in volume, oedematous, dark red in colour, and were traversed by gelatinous streaks of about 4-10 inch in thickness. The bronchi, trachea, and larynx contained much foamy mucus, and their mucous membranes were very red. The two cardiac ventricles contained dark and imperfectly coagulated blood, and the kidneys were very congested.

Prof. Guillebeau, who examined the pus of the abscesses microscopically found it to contain both coli bacilli and the necrosis bacillus.

The few cases of this affection which are mentioned in the literature of Harmst, Faustle, and Bidard occurred with almost similar manifestations to the above from the symptomatic and anatomopathological points of view. Franck and Reimers, however, have observed that sometimes hepatic abscesses, instead of causing thrombosis of the veins, open into these veins and so produce metastatic abscesses in the lungs and kidneys, or even pyemia.

The diagnosis of this condition during life is almost impossible.

As regards the etiology, it may be held certain that the thrombosis of the vena cava is most frequently the result of an inflammatory process of the adjoining hepatic tissue, which provokes an inflammation of the vascular wall with consecutive coagulation of blood. The consequences of the formation of these thromboses are extremely variable, for, while some have little influence on the general condition of the animal, others entail profound disturbances necessitating slaughter. Sometimes, also, as in the present case, sudden death occurs in animals apparently in good health, causing anthrax to be suspected.

The venous alterations often provoke serous transudations into the peritoneum, or a rapidly mortal pulmonary oedema.—(*Annales de Méd. Vét.*)

W. R. C.

## MILK AND DAIRIES BILL.

### [ABSTRACT.]

1. A person shall not carry on the trade of dairyman in any dairy within the district of a sanitary authority unless he and the dairy are registered with the sanitary authority in accordance with this Act and the orders made thereunder, and if he does so he shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding *five pounds*.

2. The medical officer of health for any sanitary district shall have power at all reasonable hours to enter any dairy situate within the district and inspect the dairy and the persons employed therein, and, if accompanied by a veterinary inspector or some other properly qualified veterinary surgeon, to inspect the cattle therein.

(Every dairyman and the persons in his employment shall render such reasonable assistance to the medical officer of health or a veterinary inspector or veterinary surgeon as he may require for all or any of the purposes of this section, and any person refusing such assistance or obstructing such medical officer of health or veterinary inspector or veterinary surgeon in carrying out the provisions of this section shall be liable on summary conviction to a fine not exceeding *five pounds*.)

3. If on any inspection of a dairy the medical officer of health making the inspection is of opinion that in-

fectious disease is caused, or is likely to be caused, by consumption of the milk supplied from the dairy, or of the milk of any particular cow kept therein, he shall report thereon to the authority by whom he was appointed (hereinafter referred to as the responsible authority), and to the Local Government Board and Board of Agriculture and Fisheries, and his report shall be accompanied by any report furnished to him by the veterinary inspector or veterinary surgeon, and the medical officer of health, if he considers the case to be one of urgency on account of the spread or suspected spread of infectious disease, may, on behalf of the responsible authority, and pending their decision, agree with the dairyman that the dairyman shall stop the supply and use of milk from his dairy or from any particular cow kept therein; or make an interim order prohibiting the supply for human consumption.

4. On the receipt of a report or a copy of a report made by a medical officer of health the responsible authority may serve on the dairyman notice to appear before them within such time, not less than twenty-four hours from the time of the service of the notice on him as may be specified in the notice, to show cause why an order should not be made prohibiting him, either absolutely or unless such conditions as may be prescribed in the order are complied with, from supplying for human consumption, or using, or supplying for use, in the manufacture of products for human consumption, any milk from the dairy or from any particular cow kept therein until the order has been withdrawn in accordance with the provisions of this section. The notice shall be accompanied by a copy of the reports made on the inspection of the dairy.

5. Whenever an inspection is made in consequence of a notice given by the medical officer of health of a notifying authority a copy of any reports which may be made by the medical officer of health making the inspection or by the veterinary surgeon or veterinary inspector accompanying him and information as to whether any action has been taken upon those reports and as to the nature of that action shall be furnished to the medical officer of health who gave the notice.

6. If any dairyman, whilst any interim or other order prohibiting the supply or use of milk made under this Act of which he has notice is in force, supplies or uses any milk in contravention of the order, he shall be liable on summary conviction to a fine not exceeding *five pounds*.

7. An interim or other order prohibiting the supply or use of milk made under this Act shall be forthwith withdrawn and notice of the withdrawal served on the dairyman as soon as may be after the responsible authority or their medical officer of health are satisfied that the milk supply has been changed or that it is not likely to cause infectious disease.

8. If a dairyman is aggrieved by an order prohibiting the supply or use of milk (other than an interim order) he may appeal to a court of summary jurisdiction, who may confirm, vary, or withdraw the order.

9. If any order prohibiting the supply or use of milk is made under this Act either by the medical officer of health or by the responsible authority without due cause, or if the responsible authority or medical officer of health unreasonably refuse to withdraw any such order, the dairyman shall, if not himself in default, be entitled to recover from the responsible authority full compensation for any damage or loss which he has sustained.

10. Where a responsible authority have delegated their powers under the provisions of this Act with respect to the inspection of dairies and the making of orders prohibiting the supply or use of milk to a committee, anything authorised or required by those provisions to be done to or by the authority shall be done to or by the committee.

11. The council of any county, and the medical officer of health of any county, may exercise and perform in a rural district, and if the council of an urban district consents in an urban district, any of the powers and duties to be exercised and performed under this Act by a sanitary authority and by the medical officer of health for a sanitary district respectively, in connection with the inspection of dairies, and the things required or authorised to be done on or after the inspection of a dairy.

12. If a person—

(a) Knowingly sells, or offers or exposes for sale, or suffers to be sold or offered or exposed for sale, for human consumption or for use in the manufacture of products for human consumption; or

(b) Knowingly uses or suffers to be used in the manufacture of products for human consumption; the milk of any cow which has within six months to his knowledge given tuberculous milk, or which is suffering from tuberculosis of the udder, or which is emaciated from tuberculosis, he shall for each offence be liable on summary conviction to a fine not exceeding *ten pounds*.

13. It shall be lawful for an inspector of the Local Government Board, or the medical officer of health of a county or of any sanitary district, or any person provided with and, if required, exhibiting any authority in writing from such an inspector or medical officer of health, to take for examination samples of milk at any time before it is delivered to the consumer.

14. The Local Government Board may by order require the council of any county, borough, or urban district to appoint, or combine with another such council in appointing, for the purposes of this Act, one or more veterinary inspectors, or to employ for those purposes any inspector or other officer appointed by the council under the Diseases of Animals Act, 1894: and any such order requiring a combination of councils may provide for all matters incidental to such combination, and in particular how the expenses incurred are to be apportioned.

15. The Local Government Board, after consultation with the Board of Agriculture and Fisheries, may make such general or special orders as they think fit for the purpose of carrying this Act into effect.

16. A warranty or invoice shall not be available as a defence to any proceedings under the Sale of Food and Drugs Acts, 1875 to 1907, where the article in respect of which the proceedings are taken is milk.

17. The Local Government Board shall make regulations under the Public Health (Regulations as to Food) Act, 1907, for the prevention of danger arising to public health from the importation of milk intended for sale for human consumption.

18. The sanitary authority of any district (other than a rural district with a population of fifty thousand or upwards may, subject to regulations under this section, establish and thereafter maintain depots for the sale of milk specially prepared for consumption by infants under two years of age.

19. Where a complaint is made to the council of a county in which a county district is situate—

(a) by any four inhabitant householders of the county district; or

(b) by the parish council or parish meeting of any parish within the district; or

(c) by the sanitary authority of a district within which milk is supplied from any dairy in the county district;

that the council of the county district have failed to fulfil their duties under this Act, the county council may cause a public local inquiry to be held, and if after holding such an inquiry the county council are satisfied that there has been such a failure on the part of the council of the county district, the county council may resolve that the powers of the council of the county

district under this Act be transferred to the county council, and those powers shall be transferred accordingly, and section sixty-three of the Local Government Act, 1894, shall apply as if the powers had been transferred under that Act.

If the council of a county or county borough fail to fulfil any of their duties under this Act, whether imposed on the council by this Act or in the case of a county council transferred to the council from the council of a county district under this section, the Local Government Board may after holding a local inquiry make such order as they think necessary or proper for the purpose of compelling the council to fulfil their duties, and any such order may be enforced by mandamus.

20. The Local Government Board may hold local inquiries for the purposes of this Act, and any expenses incurred by the Board in respect of such inquiries, including the salary of any inspector or officer of the Board engaged in the inquiry, not exceeding *three guineas a day*, shall be paid by such authorities and persons, and out of such funds and rates as the Board may by order direct.

21. Any notice, order, or other document required or authorised to be served under this Act may be served by delivering the same or a true copy thereof either to or at the usual or last known residence of the person to whom it is addressed, or where addressed to the owner or occupier of premises, then to some person on the premises.

22. The expenses of local authorities under this Act shall be defrayed:—

(a) in the case of a county council out of the county fund;

(b) in the case of the common council, out of the general rate;

(c) in the case of the council of a Metropolitan borough, as part of the expenses incurred by the council in the execution of the Public Health (London) Act, 1891.

(d) in the case of the council of a municipal borough or urban or rural district, as part of their general expenses incurred in the execution of the Public Health Acts.

23. Proceedings against a dairyman for failure to comply with an order made by a responsible authority or a medical officer of health requiring the dairyman not to supply milk from a dairy or from any cow in a dairy may be taken before the court of summary jurisdiction either in the place where the offence was committed or in the place where the dairy is situated, and shall be taken only by the authority by whom or on whose behalf the order was made.

24. In this Act—

The expression "dairy" includes any farm, farmhouse, cowshed, milk store, milk shop, or other place from which milk is supplied or in which for purposes of sale or manufacture into butter or cheese milk is kept or used, but does not include a shop from which milk is not supplied otherwise than in the closed receptacles in which it was delivered to the shop or a shop in which milk is sold for consumption on the premises only.

The expression "dairyman" includes any cow-keeper, purveyor of milk, or occupier of a dairy, but shall not include a person who only sells milk of his own cows in small quantities to his workmen or neighbours for their accommodation.

The expression "medical officer of health" includes any duly qualified medical practitioner authorised by the council to act on behalf of the medical officer of health.

The expression "veterinary inspector" means an inspector being a member of the Royal College of Veterinary Surgeons, or any veterinary practitioner qualified as approved by the Board of Agriculture and Fisheries.

The expression "milk" includes cream.

THE TRANSVAAL  
VETERINARY MEDICAL ASSOCIATION.

BLOED PENS IN LAMBS.\*

ALSO KNOWN AS "INFECTIOUS DIARRHOEA IN LAMBS,"  
DYSENTERY, SLAPZIEKTE, SKITTERY, VERSTOPZIEKTE.

By Mr. W. H. ANDREWS, M.R.C.V.S.

This is by no means a new disease, for in an article in *The Cape Agricultural Journal* for Sept., 1904, Hutcheon quotes a communication on the subject from a certain "Old Hendrick" to *The Colesberg Advertiser* in October, 1888. Moreover, a number of Boers have assured me that a disease called Bloed Pens occurred on their fathers' farms at least 40 or 50 years ago. As the mortality was so much lower in those days, however, many are of the opinion that the "old Bloed Pens" was quite a different disease—a more or less benign condition of indigestion due to simple causes, such as overfeeding.

A disease in lambs closely resembling Bloed Pens, if not identical with it, is recorded by Nocard and Lecainche, by Moussu, and by Cagny as occurring in France, and as causing very serious losses on certain farms, and in certain districts. It is also mentioned by Hutya and Marek.

This disease appears to have existed for many years on a number of farms in the Steynsburg district, and on the same farm the incidence, or at least the mortality, varies within very wide limits in different seasons. Farms are also affected to a greatly varying degree, some farms having a very bad reputation in this respect, while others have suffered annually, for several years, a small but varying loss. A farm free of the disease may often be surrounded by infected farms, and this state may exist for years.

There appears to be no doubt that within recent years the disease has appeared on many farms, and in several districts, previously considered to be quite free from it. The disease has been reported to me from the following districts of the Cape Province: Phillipstown, De Aar, Hanover, Colesberg, Middleburg, Steynsburg, Maraisburg, Venterstad, Burgersdorp, Barkly East, Queens-town, Cathcart, Tarka, and Uitenhage. It is also recorded from the Fauresmith district of the Orange Free State, and probably exists in other districts also.

The percentage of lambs dying from the disease recognised as Bloed Pens may be as low as 1% on certain farms or in certain seasons, and, on the other hand, a farmer may lose from 20 to 60% or even more, of the lambs born in one season. There can therefore be no doubt that this disease is a serious menace to the sheep-breeding industry, on which the future prosperity of a considerable part of the country depends.

The term Bloed Pens is applied by farmers to a disease attacking lambs during the first two, or even three, weeks of extra uterine life, and it is at present difficult to separate all cases of true Bloed Pens from other and accidental conditions.

The age at which the disease is first seen, the duration of the sickness, and the symptoms all vary considerably. In the majority of cases the lamb exhibits the first symptoms on the second or third day after birth, but they may not appear until even the second week. The majority of farmers are agreed that a certain proportion of the lambs attacked are visibly sick at the time of birth, or very shortly afterwards.

The occurrence of abortion or premature birth is not commonly associated with Bloed Pens, and very few lambs appears to be stillborn.

The course of the disease is generally acute, and lambs usually die within 24 to 36 hours of the time when symptoms are first noticed.

In a considerable number of cases lambs which have never been noticed to be sick are found dead, and in some instances the period of visible sickness could not have exceeded one or two hours. On the other hand animals may sometimes linger for a week or more after the first symptoms are shown, and such cases are said sometimes to end in recovery.

The symptoms vary in different cases, but the principal symptoms are the following:

1. Refusal or inability to drink from the ewe.
2. Continual bleating, and wandering from the ewe.
3. Diarrhoea. In a small proportion of cases, blood is passed with the faeces.
4. Obstinate constipation may occur, especially in sub-acute cases.
5. Abdominal distension is usually considered to be a symptom, but in some cases the lamb presents a decidedly "tucked up" appearance.

Later symptoms are general weakness, a tendency to lie down, inability to follow the ewe, or ultimately to recognise her, and finally collapse, and death.

The diversity of the symptoms displayed has led many farmers to recognise several types of the disease, sometimes even considered as quite distinct diseases. Hence arise such names as "dik" and "dun" Bloed Pens, Slapziekte, Verstopziekte, etc.

*Post-mortem lesions.* Except in cases which have lived exceptionally long, there is no appreciable emaciation. As a rule, externally there are signs of diarrhoea, possibly with admixture of blood, and abdominal distension may be noted.

In the great majority of cases, if not in all, the umbilicus externally is quite normal in appearance.

Coagulation of the blood, rigor mortis, and post-mortem putrefaction appear to occur normally.

The lungs, trachea, and bronchi are generally normal; in a few cases there may be slight pulmonary oedema and congestion. The bronchial glands are generally normal, but occasionally are somewhat enlarged and congested.

The great serous cavities sometimes contain a transudate usually clear, but occasionally blood-tinged. The pericardial and pleural membranes do not show any abnormalities, but the peritoneum generally shows congestion of vessels in parts, occasionally to a marked degree. The peritoneal coat of parts of the intestine, and occasionally that of the pyloric portion of the abomasum, may be deep red in colour, and in some cases that of the greater part of the small intestine is deep yellow in colour. Localised areas of peritonitis may occur in sub-acute cases, as described later.

The heart is generally normal, but in acute cases petechiae may occur under the epicardium and endocardium.

The liver and spleen present no characteristic changes visible to the naked eye.

The suprarenal glands appear in some cases to be much congested, and even to contain hæmorrhages, and the medulla of the kidney is often very dark red in colour.

The omasum, rumen, and reticulum are normal. The abomasum may be normal, or the mucosa may show varying degrees of congestion, usually in small patches. The contents are usually normally coagulated milk, the coagula as a rule being comparatively small and soft.

After making a very large number of careful autopsies I am of opinion that the marked lesions in the aboma-

\* Read at the eighth annual meeting, held in Pretoria, on 1st, 2nd, 3rd August, 1912.



sum observed in cases of White Scour, and described by Hutcheon as occurring in Blood Pens, are exceptional in the latter disease.

In the small intestine the extent and degree of the inflammatory changes in the mucosa vary considerably. In some cases such lesions are seen throughout the whole length of the intestine, in other cases affected portions of greater or smaller extent occur, at irregular intervals, while the intervening portions show little if any change. In some cases the anterior portion of the intestine is more or less normal, and only the second part is affected; in other instances the reverse is the case.

In different cases, and even in different portions of the intestine in the same case, the lesions vary from a moderate hyperæmia over small patches or more diffuse to a marked congestion with thickening of the mucosa, and sometimes surface erosion. Occasionally petechiæ are seen, and in rare cases areas where actual hæmorrhage into the intestinal lumen has occurred.

In some sub-acute cases the mucosa generally is more or less normal, but shows at intervals a small lesion which appears generally, if not always, to develop in connection with a Peyer's patch. The mucosa becomes much congested and thickened, ulceration commences, and this is accompanied by active proliferation of the surrounding connective tissue. One may thus find small fibrous patches, easily detected by both eye and fingers, about  $\frac{1}{2}$ -2 cms. in diameter. The ulcer has usually a yellowish-green hard crust, beneath which the ulcerated membrane is of a deep red colour. If death does not intervene the process eventually involves the peritoneum, and adhesions are formed between affected portions of the intestine and the abdominal wall, or any adjacent organ. The fibrous thickening occurring around these lesions may reduce the lumen of the bowel very considerably, and in some cases it is almost completely obstructed.

The *large intestine* is less constantly affected, but when lesions occur they are of the same nature, and show the same degrees and types as in the small intestine.

The *mesenteric glands* are frequently but not always enlarged and hyperæmia, they may even appear hæmorrhagic.

The umbilical vein is almost invariably quite normal in appearance. The umbilical arteries may appear normal, but sometimes appear to be rather distended, and there may be considerable extravasation of blood along their course, extending over the urachus and on to adjacent parts of the bladder wall.

#### DIAGNOSIS.

It will be realised, from the description given, that some cases of Blood Pens are quite characteristic, and in these cases a reliable diagnosis may be made. In a considerable proportion of cases, however, neither the ante-mortem symptoms, nor the post-mortem lesions, present any very characteristic feature. It is often quite impossible, therefore, to determine with certainty whether an individual case is one of Blood Pens or not, although the history of the flock from which the case is taken may give useful indications. The difficulties of diagnosis, and the probability of having practically all deaths in lambs referred to this one disease render it very difficult to form accurate opinions about any features of the disease, and the first object of any investigations into the cause and nature of Blood Pens must be to find a basis on which to establish a means of accurate diagnosis.

*Conditions affecting the occurrence of the disease.*—From the answers to the queries sent out by this division in book form, and from personal observations, it would appear that variations in topographical features, soil, veldt, and water supply, have no influence on the disease.

*Species.*—A few farmers claim to have seen the same disease occur in calves and foals, but the majority are not of that opinion. It is commonly held, however, that kids are affected similarly to lambs.

*Breeds of sheep.*—All breeds seem to be more or less equally liable.

*Age.*—This, as previously stated, varies up to 2 weeks.

*Sex.*—No difference.

*The condition of the Ewes* is generally quite normal. Hutcheon's theory that the lambs might be predisposed to the disease through the influence of debilitating conditions on the ewes is, in my opinion, quite untenable. As I have seen personally, the disease may work havoc in a flock where the ewes are well fed, protected from any inclement weather, and in excellent condition.

*Season of the year.*—From a mass of often strangely contradictory evidence it would appear that this has no influence, but many farmers are very confident as to the safety of lambing in certain months, and especially the warmer months of the year.

*Weather.*—Perhaps the majority of farmers have suffered more heavily in wet seasons, but many have had the opposite experience.

#### ÆTIOLOGY.

From the description of the disease it will be seen that it is very similar to White Scour in calves, but, as previously stated, the abomasum is not commonly affected to any great degree, and lung complications are, I think, unknown. But in any case I do not think we would be justified in assuming that the two diseases are identical, and that the umbilicus is the sole channel of infection.

I may remark that a large number of progressive farmers have taken great trouble in disinfecting the navels of newly-born lambs, and I think that they are unanimous in stating that their losses were not affected thereby to any appreciable extent. Although this cannot be taken to disprove the navel theory, yet it certainly appears that this disease demands separate investigation.

Many theories have been formulated, but I think that the only feasible hypotheses are the following:—

1. That the disease is caused by a micro-organism gaining entrance by the mouth, or by the umbilicus, during or after birth, or even in utero.
2. That it is due to a toxin gaining access to the lamb via the mother's blood in utero or by way of the milk after birth. This toxin might be manufactured by some micro-organism or derived from a plant.

A very large number of farmers are quite positive in their assertions that some lambs are actually born sick, and I have seen newly-born lambs presenting lesions quite indistinguishable in the present state of our knowledge from those of Blood Pens. Moreover, Moussu records the existence of a disease in calves very similar to White Scour, in which the calves are undoubtedly born sick. I think, therefore, that it is unwise to condemn any of these theories untested, and that experiments should be conducted with a full appreciation of all possibilities.

Under the supervision of Dr. Theiler, I drew up a scheme for a series of such experiments, but there has been the greatest difficulty in carrying them out. Blood Pens, which caused almost ruinous loss over large districts during 1911, has been almost negligible up to the present month of 1912, and I have been seriously hampered by extreme difficulty in finding any cases. The experiments in which animals are exposed to infection in a variety of ways are therefore very incomplete, and we are not yet in a position to draw any definite conclusions.

During the past two weeks a number of inoculations into both ewes and lambs have been performed, but the results are not yet apparent.



With regard to cultures, I have not yet been able definitely to associate any organism with the disease, and I think that the members of the association will fully sympathise when I remark that when making cultures in some kraal or stable it is not difficult to get bacteria of sorts.

In conclusion, I suppose that it is hardly necessary to add that a most extraordinary variety of supposed prophylactic and curative agents have been employed, and that some have obtained a very great, if sadly ephemeral, reputation. Of more rational measures the burning out of kraals and the keeping of ewes on the veldt to lamb appear in many cases to have reduced the incidence of the disease very materially, but there are some notable exceptions.

#### A COMMUNICATION ON A BONE DISEASE OF FOWLS, WITH EXHIBITS.

By Mr. T. H. DALE, M.R.C.V.S.

Mr. Dale said that although he had intended to write a paper on the disease of Poultry, for which he was down on the Agenda, he had found that the preparation of his paper on "Sterility" in conjunction with extra pressure of his ordinary duties had made this impossible. As however very little, or practically nothing was known about the disease, there was very little to be said. The two exhibits which he intended handing over to Dr. Theiler for experimental purposes were cockerels, the one about 8 months old and the other about 16 to 18 months. It would be noticed in the case of the former that the shanks or long bones of the legs were many times thicker than normal, and although the bird appeared to be perfectly healthy, and although no other lesions were discernable, it would be found when the bird was slaughtered that the majority of the bones of the skeleton were affected, and that a considerable amount of deformity existed.

In the case of the older bird, although the leg bones were normal, which was unusual, these generally being affected first, it would be found on examination that there was an enormous thickening of the breast bone, and if one looked at the bird it would be noticed that it presented a curiously "humped" or deformed appearance, although apparently in good health, with the exception of a chronic diarrhoea, which always set in sooner or later. In any cases which had died the bird gradually wasted away, there appeared to be a progressive atrophy of the whole muscular system, and as the disease progresses a diagnostic "gait" develops, which is difficult to describe, but which is undoubtedly due to the enormously increased size of the bony skeleton, the curvature of the bones which often takes place, and the muscular wastage. There is, however, no ankylosis, the absence of articular lesions being most marked, and the changes in the bones themselves appear to be suggestive of inflammatory rather than degenerative changes, the bone is softer than usual, and the line of demarcation between the compact and cancellated tissue is ill-defined, whilst the bones themselves are chalky in appearance.

Should it be thought necessary to coin a name at this stage, "Osteitis Deformans" of Poultry might do. The disease makes its appearance in certain yards annually, a small percentage only being infected—perhaps two or three per cent.—but it does not appear to have any hereditary tendencies, as the chicks from eggs hatched out in other yards do not become infected. No line of treatment has been of the least avail, the disease although progressing slowly is never arrested; the lesions become steadily more marked, the bird becomes a hopeless deformity, diarrhoea sets in, followed by cachexia and death.

#### THE SYMPTOMATOLOGY AND PATHOLOGY OF SNAKE-BITE IN DOMESTICATED ANIMALS.

By W. H. ANDREWS, B.Sc., M.R.C.V.S.

In introducing the subject of snake-bite, I would point out that this paper is intended to emphasise chiefly the features of clinical interest, and that as regards pathology I have limited myself to the enumeration of the lesions visible to the naked eye. The subject, apart from its theoretical interest, is one of direct practical importance to every veterinary surgeon working in a sub-tropical country such as South Africa.

The South African veterinary surgeon hears of many deaths among domesticated animals which are alleged to be due to snake-bite, and he will probably see various animals presumed to be dying, or to have died, from that cause. In the majority of cases, however, the cause of such an animal's condition is a matter of surmise, the actual bite not having been witnessed; moreover, the identity of the snake concerned is not established.

The symptoms and lesions produced in man by the bite of various snakes have been fully described by a number of observers in India, Australia, America, etc., but our knowledge of the corresponding processes occurring in the domesticated animals is of a very general and somewhat vague character, being based chiefly on the known facts concerning man and small laboratory animals. It was chiefly with the object of establishing definite data, on which to base, as far as possible, a reliable diagnosis, that, at Dr. Theiler's suggestion, I undertook the study of this subject.

A certain knowledge of the classification of snakes is a useful asset to the veterinary surgeon in either his professional or his private capacity. Harmless snakes, which may render excellent service as expert destroyers of rats and mice, are frequently the innocent cause of much unnecessary excitement, and even terror. On the other hand, certain venomous snakes may easily be mistaken for harmless species; thus the yellow (or Cape) cobra bears a strong, though superficial resemblance to the harmless mole snake, and the night adder and the egg-eating snake are very frequently confused. I propose, therefore, to give a short *resumé* of the classification most generally accepted.

The order *Ophidia* is divided into five families, of which only two, the *Colubridae* and *Viperidae*, are of special interest to the pathologist.

**COLUBRIDÆ.** The members of this family are arranged according to certain notable differences in their identity, in three divisions, viz. the aglypha, opisthoglypha, and proteroglypha.

*Aglyphous colubridae.* In these the upper jaw bears a considerable number of teeth arranged in two series, maxillary and palatine: these teeth are all solid, and members of this division are quite harmless.

*Proteroglyphous colubridae.* The palatine teeth are more or less similar to those of the aglypha, although generally fewer in number; the maxillary teeth, on the other hand, show a striking difference.

The series of more or less small maxillary teeth, shown in the aglypha, is here usually represented on each side by a single large tooth or fang, situated at the front of the maxilla, and immediately behind this fang a number of accessory or replacing fangs in different stages of development. The large fang is more or less deeply grooved, and the base of the groove is in communication with a duct leading from a highly specialised poison gland. These snakes are all venomous.

*Opisthoglyphous colubridae* are morphologically intermediate between the aglypha and proteroglypha. In these the maxillary teeth may be reduced in number, but there are always some solid teeth, similar to those found in the aglypha.

Towards the posterior extremity of the maxilla, however, are a small number of somewhat larger teeth possessing a distinct groove. This groove does not communicate with a large specialised gland and duct, but there is a small glandular structure situated at the base of the grooved teeth. The opisthoglyphs have generally been considered as non-venomous, or as being unable to inflict a bite dangerous to man or the larger mammals, but we have been able to disprove this theory as far as one member at least (the Boomslang) is concerned.

**VIPERIDÆ.** Finally, these are very similar in dentition to the proteroglyphous colubridæ, possessing a very large maxillary fang, pierced by a more or less completely closed channel. They are distinguished by certain modifications in the maxillæ and adjacent bones, permitting a free movement of rotation of the anterior extremity of the upper jaw. The head is generally triangular, the body flattened, and the tail very short; the fangs are very long, and the point of the fang is very sharp. They are all more or less venomous.

The formation of the so called "hood," by the raising of the anterior series of ribs, is characteristic of the genera *Naja* and *Sepedon*, and a snake showing a "hood," when the head is well raised, is either a cobra or a ringhals.

It may be remarked that colour is a very unreliable guide in classification, for many species show considerable variation in this respect, and in some species (e.g., the Cape cobra) the differences may be quite remarkable.

The venomous power of one and the same snake is not constant, but varies greatly with the amount of venom accumulated and ready for use, and a bite may be more or less harmless if inflicted immediately after the snake has consumed a meal, or after it has bitten some object such as another animal, or a stick.

In two of our experiments (concerning a boomslang and a ringhals respectively), the snake bit two sheep in rapid succession; in each case the animal first bitten died, and the sheep bitten later was hardly, if at all, affected.

On the other hand, it is said that a snake may sometimes inflict several fatal bites in quick succession.

The toxicity of the venom of a given species appears to vary in different localities, and in certain seasons.

#### METHODS OF INVESTIGATION.

With regard to the methods employed, it was decided to allow the snake which was being tested actually to bite the experimental animals, and this method was chosen as reproducing, as far as possible, natural conditions with regard to the dose of the venom employed, and the method of its introduction into the animal tissues.

For manipulating large snakes, we generally employ a pole of about six feet in length, pierced near one end by two holes, about one inch apart. A stout cord, knotted at one end, is passed through the two holes, and the snake is held, a few inches behind the head, in the loop thus formed.

The further end of the pole, together with the loose unknotted end of the cord, may be held with one hand, and with the other hand it is advisable to secure the tail of the snake.

Smaller snakes, such as *Schaapstekers*, are more easily held with forceps, or with the hand, but mechanical means are generally to be preferred for our purpose, as it is then possible to allow the snake greater freedom to strike.

The snake, secured by one of the above-described methods, was brought into contact with a selected region of the experimental subject, and allowed to bite freely; in some cases it was necessary to irritate the snake before any attempt to bite was made. The bitten animal was then placed in a loose box, and freed, as far as

possible, from all restraint, the clinical symptoms being noted at short intervals.

#### SOUTH AFRICAN SNAKES.

The South African sub-continent contains a very considerable number of different genera and species of snakes, the majority being quite harmless to man and the larger animals.

Of the families that are of special interest from our point of view, on account of their venomous powers, the following are the commonest and most widely distributed species:—

#### *Colubridæ*—

*Proteroglyphæ.* The Mamba (*Dendraspis*)

The Cape black-necked and Egyptian cobras (*Naja*)

Ringhals (*Sepedon*).

*Opisthoglyphæ.* Boomslang (*Dispholidus typus*)

Schaapsteker (*Trimerorhinus*)

Sand snake (*Psammodromus*)

Herald snake (*Leptodira*).

*Viperidæ.* Puff adder (*Bitis arietans*)

Night adder (*Causus rhombeatus*).

Unfortunately I have not yet been able to make any observations on the effect of the bite of the mamba, owing to the difficulty of procuring live specimens of this species.

I have also been unable to carry out any experiments with the black-necked cobra, but the other species enumerated above have been tested on horses, mules, donkeys, sheep, and dogs.

#### CLINICAL SYMPTOMS.

It is advisable to consider first only the ordinary poisonous snakes, the proteroglyphous or front-fanged colubridæ, and the vipers.

Calmette, in his classical work on venoms, gives a description of the clinical symptoms of snake-bite in man and in laboratory animals, and he makes the following statement:—

"It is remarkable to notice how great is the importance of the local disorders when the venomous reptile belongs to the group of the Solenoglyphs (or vipers), while they are practically nil with the Proteroglyphs (colubridæ and sea-snakes)." He then gives two clinical pictures, the first being that of a man bitten by a cobra, and the second that of one bitten by such a viper as a *Lachesis*.

In the first case (of cobra bite) the symptoms given are those of nervous depression, coma, and the termination by respiratory paralysis; in the second case (viper bite) marked pain locally, extensive local hæmorrhagic infiltration, and finally depression, coma, respiratory paralysis, and death from asphyxia.

A striking feature of the clinical records of our cases relating to more than fifty animals (horses, mules, donkeys, sheep and dogs) is the considerable variation to be observed with regard to practically every symptom. These variations are doubtless due to differences in the susceptibility of the subject of the bite, and in the dose of venom injected.

The symptoms which at first sight appear to be so variable may be correlated and arranged in several main groups.

*Local swelling.*—In some cases this is present, with the possible occurrence of subcutaneous or sub-epidermal hæmorrhage.

With regard to the local swelling, we cannot accept Calmette's statement that such local changes are practically absent in cases of a bite by a colubrine snake. Very large prominent œdematous swellings have appeared in a number of our cases, following bites inflicted by the Egyptian and Cape cobras, and by the Ringhals. On the other hand, it must be admitted freely that there is a much more pronounced tendency to local changes under the influence of the venom of an adder or

viper, and that such local changes are of a more serious and painful character.

When death ensues rapidly, animals bitten by vipers may show little or no local swelling, and it appears from our experiments that with colubrine venom the local swelling is usually but not always a sign of a subacute case which may probably end in recovery.

It should be noted that the œdematous swellings show a great tendency to gravitation, and that such a swelling, when first seen, may be situated at some considerable distance from the bite.

Hæmorrhagic discoloration of the skin is generally difficult clearly to distinguish in domesticated animals, but in favourable situations it may sometimes be seen, especially as a result of the bite of a viper.

*Symptoms directly due to the position of the bite.*—These symptoms are naturally of a varied character. In the majority of our experiments the bite was inflicted on the neck, shoulder, or thigh of the experimental subject.

In cases where the neck is primarily affected there are usually no symptoms of this character, unless an extensive œdema follows, involving the forelimb by gravitation and producing lameness.

A bite on a limb may produce lameness from pain, or from mechanical interference with the movement of a joint by swelling, and from either of these causes an animal may go down and remain for a considerable period in a recumbent position, although the general health may be hardly, if at all, affected.

In one case in which a sheep was bitten in the nostril the ordinary symptoms were complicated and obscured by violent movements of the head, due to considerable hæmorrhage into the nasal cavity, and by dyspnoea, occurring early as a result of hæmorrhage and local swelling.

*Symptoms due to local pain.*—The presence of local pain may be shown by a variety of symptoms. If a limb is affected there may be frequent jerky movements of that particular limb, it may be abducted or partially flexed, the weight being thrown on to the corresponding limb of the other side, or it may be carried. An animal may look frequently towards the region bitten, or it may even attempt to bite it. There are also general symptoms of pain, such as extreme restlessness, blowing, perspiration, and a frequent hard pulse.

*Nervous symptoms.*—These comprise signs of nervous excitation and depression, and of pain; with symptoms of pain we have already dealt.

The symptoms of *nervous excitement* include restless wandering around the box, and restless movements of the head, jaws, limbs and tail. Quivering of muscles, or even strong spasmodic contractions may be shown, and in each case the process may be local or more or less general. In the final stage of asphyxia there may be general convulsions. In some cases there are involuntary contractions of the diaphragm and abdominal muscles, producing vomiting, retching, and copious evacuation of the bowels. Large quantities of urine may also be passed, in some cases after the animal appears to have lost consciousness. Defæcation and micturition appear, in some cases, to occur as manifestations of pain. Other symptoms of nervous excitement shown are frequent deep respirations, and a frequent fast pulse.

To what (if to any) extent the unstriated muscle of the abdominal viscera is concerned in these processes is a question demanding special investigation, and such a matter is, in any case, beyond the scope of this paper.

Other symptoms of *nervous depression* range from slight dullness to paresis, either local or more or less general, and finally paralysis. In the dull stage the animal is inclined to remain for long periods in one position, the head hangs, the ears droop, and frequently the eyes are closed. Later, the animal may go down, or it may rest against a wall or manger, and give the appearance of

"boring." Co-ordination of movement may become impaired, resulting in a staggering gait, and control over particular parts may be lost to a varying degree. Thus the lips may hang away from the teeth, and be unable to close on any food, the anus may be relaxed, and the animal may be unable to protrude the penis, or to retract it when protruded. Animals in this stage of depression sometimes show marked salivation.

*Respiration and pulse.*—These are affected by pain, and may reflect the general conditions of nervous excitation or depression. The vast majority of fatal cases, if not all, appear to terminate by paralysis of the respiratory apparatus, and the heart may continue to beat for three or four minutes, or even longer, after respiration has ceased.

*Temperature.*—This would appear to be affected very little. In a few cases we have noted a rise of not more than one degree Fahrenheit, and in the later stages subnormal temperatures have been recorded.

The details of the experiments performed with the different species of snakes are as follows:—

*COLUBRIDÆ.*—(1) *Naja haie*, the Egyptian cobra. This species was tested on:—Two horses, of which one died and the other was only moderately affected. One donkey, which was bitten on two occasions, and which recovered. Four sheep, of which two died, one recovered, and the fourth, bitten immediately after another sheep by the same snake was hardly affected, and one dog, which died. Thus in eight cases there were four deaths, three recoveries, and one failure to infect.

With regard to the symptoms, no local swelling was observed in any of the cases terminating fatally, but in those ending in recovery it was a prominent feature. In one case the swelling was hot, tense, and painful, but in the other two cases it was more or less soft and insensitive.

Nervous symptoms were very marked, and there was generally a period of excitement followed by marked depression. In some cases there were, however, several alternating phases of excitement and depression, and the first period of excitement was hardly noticeable in two cases.

In the two sheep following the preliminary symptoms of excitation there was a long period during which the animal appeared normal, and the appearance of the depression led very rapidly to death.

In the one dog tested, which died within four hours, no symptoms whatever were shown until about half an hour before death. Symptoms of great nervous excitement then appeared, and coma and death followed rapidly.

In the other cases the first symptoms were shown from ten to thirty minutes after the bite, and in the cases showing a local swelling the latter was first noticeable in eight minutes in one case (that of a donkey) and in one to two hours in the others.

The periods elapsing before death occurred were as follows:—

Horse : 21 hours.

Two sheep : 5 and 15 hours respectively.

Dog ! Less than 4 hours.

(2) *Naja flava*, the Cape or yellow cobra, was tested on one horse, one mule, and two sheep, and death ensued in every case.

The symptoms were very similar to those caused by the Egyptian cobra, but there appears to be a somewhat greater tendency, with the Cape cobra, to the production of a local swelling. Pronounced swellings appeared in both the horse and the mule, although these cases ended fatally, and, in the latter case, rapidly.

As far as one can judge from a limited number of cases, it would appear that Cape cobra venom is more potent, and causes death earlier than that of the Egyptian cobra. In our cases, the horse died in 40 hours, the mule in 5 hours, and both sheep within one hour.

(3). *Sepedon hamachates*, the Ringhals.—Ringhals were allowed to bite two horses, two sheep and one dog. The symptoms ensuing were very similar in character to those produced by the venom of either of the two cobras previously mentioned, to which the Ringhals is closely related, but it appears that the Ringhals venom is considerably less powerful, at least as far as its effect on the horse is concerned.

The two horses bitten showed only slight general symptoms of restlessness followed by depression, but in each case there was a very pronounced local swelling, soft and insensitive.

The two sheep showed well marked nervous symptoms, as in case of cobra bite, and died within one and a half and three hours, respectively.

The dog showed preliminary restlessness, commencing half an hour after the bite, and very soon there was marked dyspnoea; very shortly afterwards convulsions commenced, and death occurred forty-five minutes after the bite. It is of interest to note that this dog, a large mongrel Irish terrier, was bitten by a ringhals aged one month, and not quite six inches in length.

The power of the ringhals to project venom for considerable distances is well known; the venom is usually sprayed over the eyes of the victim, producing temporary blindness, and occasionally a conjunctivitis leading to more or less permanent impairment of vision.

I might here remark that the venom of Colubrine snakes generally is harmless when taken by the mouth, and that this appears to apply to that of the ringhals.

**VIPERIDÆ**—(1) *Bitis arietans*, the Puff-Adder.—This, probably the commonest venomous snake of South Africa generally, was tested on one horse, one mule, one donkey, three sheep and one dog; of these only the mule recovered. Local swelling was absent in two cases, those of a sheep and a dog, both of which died within an hour of the bite. In all the other cases, however, there was a swelling which attained truly enormous dimensions, and it was hot, tense and painful.

The general symptoms were those of great pain, followed by general depression, until finally coma came on, and respiratory movement ceased. In a few instances there was some motor excitement, occurring for short periods.

From the time of the bite to that of death, the periods were as follows:—

Horse: 37 hours.

Donkey: 4 hours.

Sheep: 50 minutes, 80 minutes and 9 days respectively.

Dog: 58 minutes.

The recovered mule was on five subsequent occasions subjected to the bite of one or several puff-adders, and the result was most interesting. Although the first reaction appeared to have conferred a more or less complete immunity, as regards the general effects of the venom, there seemed to be absolutely no increased resistance to the local action. Extensive painful swelling followed on each occasion, and on two occasions there was extensive necrosis and sloughing.

(2). *Causus rhombeatus*, the Night Adder.—This snake, which enjoys a considerable popular reputation for extremely venomous powers, appears to have gained much undeserved blame. In our experiments, one horse, two sheep and one dog received a full and complete bite, but of these animals only one sheep died.

The horse showed only a small oedematous swelling, and even this disappeared rapidly.

In the two sheep and the dog, a very large, hot and tense swelling developed, and there were signs of considerable local pain.

The dog shewed some depression, which soon passed off; but in one sheep there were alternate phases of restlessness (due to pain) and depression, until death occurred, three and half days after the bite.

In practice, a night adder would probably lead to the death from starvation of the majority of sheep bitten, as the extremely large swelling, and considerable pain, would prevent feeding.

#### LESIONS.

The following is a brief description of the lesions usually to be observed at the post-mortem examination:—

(1). *Colubridæ*.—If a local swelling was present during life, at that point one finds more or less extensive oedematous infiltration of the subcutaneous areolar fascia. As a rule there is a quantity of clear serous liquid, and yellow gelatinous coagula may also be noted. Exceptionally, there may be hæmorrhagic infiltration, with deep hæmoglobin staining of the adjacent tissues.

The subjacent muscle and deep fascia are generally not involved. The pleural and pericardial cavities in a few cases contain blood-stained transudates. The lungs, trachea and bronchial glands are usually unaltered.

The myocardium, liver, and kidneys generally show naked-eye evidence of varying degrees of the degenerative changes usually associated with the presence of a toxin in the blood stream. The spleen may show softening of the pulp, which is rather darker in colour than the normal.

The alimentary canal is usually normal in appearance throughout, and no naked-eye lesions are noticeable in the ventral nervous system. In some rapidly fatal cases of cobra bite, there are practically no naked-eye lesions whatever.

(2) *Viperidæ*. Here, as a rule, the local lesion appears as a marked hæmorrhagic infiltration of the subcutaneous connective tissue, and the subjacent muscles are generally involved to a greater or lesser extent. There may also be hæmorrhage into the dermis itself.

The great serous cavities frequently contain much blood-stained liquid, and petechia may be found in the cardiac ventricles and auricles, and under the epicardium, and the pleural and peritoneal coats of the different viscera. Small hæmorrhages may be noticeable in a section of the spleen, and the appearances of parenchymatous degeneration may be shown by the liver, kidneys, and myocardium.

In the preceding descriptions of symptoms and lesions I have referred throughout to the ordinary front-fanged colubines and vipers, well-known to be venomous.

The *Opisthoglypha*, or back-fanged colubines, can better be treated separately. These snakes have been considered by most, if not all, authorities to be venomous only to a slight degree, and to be unable to harm man or any of the larger mammals. In consequence of the assertion by Mr. F. W. Fitz Simons, Director of the Port Elizabeth Museum, that a Boomslang in his museum had caused what was nearly a human fatality, we tested this species on a baboon, two horses, a mule, and five sheep.

Of these animals, one horse and one sheep were bitten by a snake which was exceptionally aggressive, and which had broken off the fangs on one side by biting fiercely on a stick. These two animals failed to develop symptoms, and the same result occurred with one sheep bitten by a snake that had, immediately before this, inflicted what proved to be a fatal bite of another sheep.

The remaining horse, mule, baboon, and three sheep all died, but the symptoms were very different from those already described. As a rule, little or no local swelling followed, and there was no local pain. After a long incubation period, the animals showed some restlessness, but later the symptoms were those of increasing exhaustion. The mucous membranes became very pale, and in some cases blood exuded from the mouth or nostrils. In other cases blood in large quantities was passed with the faeces, but in some animals the pallor

of the visible mucous membranes was the only sign of the internal hæmorrhage which was occurring. Eventually death occurred from exhaustion.

The mule showed great excitement during the last three hours of life, but in no other case were such nervous symptoms seen.

The period elapsing before any symptoms were noticeable varied from four and a half to 18 hours, except in the one exceptional case of the mule mentioned above, in which the period was 56 hours.

The times elapsing between the bite and death were

Horse: 60 hours.

Mule: 75 hours.

Baboon: 24 hours.

Sheep: 8, 22, and 26 hours, in the three cases.

Post-mortem, the appearance was very characteristic, the prominent feature being the occurrence of extensive hæmorrhages. These hæmorrhages were apparently due to extensive alteration in the walls of the capillary or other small vessels, and only in one case did we find any rupture of a large vessel or of a vascular organ (a subcapsular rupture of the liver).

The position of the hæmorrhages varied. In some cases they were chiefly subcutaneous, and removal of the skin revealed a number of patches of hæmorrhagic infiltration, varying in size, and occurring on any part of the trunk, head, neck, or limbs, quite remote from the area of the bite. These patches were usually more or less circular or oval in shape, with comparatively sharply-defined limits.

In other cases hæmorrhage occurred chiefly in the alimentary canal, either generally or localised in the stomach or one part of the intestine, and especially in the cæcum and colon.

The mucous membrane of the part affected showed petechiæ, or extensive hæmorrhagic streaks and patches, and there was usually an extensive admixture of blood with the ingesta. The heart often showed extensive hæmorrhage under the epicardium and endocardium, and in the substance of the myocardium small hæmorrhages could sometimes be discerned.

The liver was sometimes studded with hæmorrhagic areas varying in size and shape, and the spleen was similarly affected. The kidneys in some cases showed many small hæmorrhages, especially numerous in the cortex. The organs not directly affected by hæmorrhage were naturally very pale, and there appeared to be some degeneration of the hepatic parenchyma.

No lesions of the central nervous system were noted, but the motor excitation observed in one case may possibly have been due to the occurrence of a capillary hæmorrhage near the motor centres.

In conclusion, it may be stated that, although we may recognise certain groups of symptoms as being associated with the action of colubrine and viperine venom respectively, yet cases occur in which it is almost impossible to differentiate between the two, and some cases of snake bite would very easily and naturally be confused with other conditions. Thus one of our horses, bitten by an Egyptian cobra, developed no visible local swelling, and at one period exhibited a clinical picture which would be considered as typical of cases of "staggers," or of cases of the so-called psammoma occurring in the lateral ventricles of the cerebrum. In the stage of motor excitement the symptoms might also, in some cases, suggest a diagnosis of spasmodic colic.

When an autopsy is performed the majority of cases should offer no very great difficulty, especially in cases of a bite from a viper, but some cases of cobra bite are extremely difficult to recognise post-mortem.

The opisthoglyphous boomslang stands more or less alone, in this country at least, and if the symptoms during life are not very characteristic until the later stages the post-mortem lesions are absolutely so.

In the course of the discussions which followed the papers, Mr. Dale said, in reference to "The Common Ailments of the Horse," that one cause of colic which Mr. Kellett had missed, a case of which had recently come under the speaker's notice was scirrhus cord, which extended into the inguinal canal, in fact he was unable to determine the extent of it. The animal exhibited marked colicky pains every second or third day, and for some time the cause was not suspected, when he felt that a very heroic operation was necessary but did not feel too eager about undertaking it. The tumour was therefore punctured with a trocar and canula in two places, one as high up as could be reached, and injected with an aqueous solution of iodine, the tumour gradually became less, the animal made an uninterrupted recovery, and at the present time, after several months' lapse of time, the animal is quite sound, only a thin hard fibrous structure remaining, no thicker than a forefinger of one's hand. He did not put this forward as a substitute for the knife, believing that in the early stages operation and excision of the tumour was indicated, but he did think that this method might be tried in cases which were non-operable.

With regard to Trypan Blue, although he had found it to be an absolute specific in cases of redwater and biliary fever of the dog—provided it could be injected at the onset of the disease, he had found that in the case of biliary fever in the horse it was quite useless, and he thought that some other drug, which Mr. Kellett might have used as an adjuvant might have been the saving clause.

Mr. Dale detailed a successful case of tetanus which he had treated with anti-tetanus and subcutaneous injections of Mag. sulph., but as there was never very marked trismus it was possible that the case might have recovered without, as he had used anti-tetanus after the symptoms had become established and several cases, in fact all except the one instance had terminated fatally.

#### BLOED PENS.

In his district it was quite common to find a whole span of oxen passing blood, generally in clots along with the faeces, but it did not appear to inconvenience them in any way, and usually stopped within a few days. If it did not a drachm of carbolic acid was given in a pint of raw linseed oil.

#### Successful Appeal on a Charge of Cruelty.

At Denbighshire Quarter Sessions held at Ruthin on Saturday, the 4th inst., before Mr. Jelf Petit (Chairman) and other magistrates, an appeal by Tom James Owens, of the Great Western Railway Company, Chirk, was heard against a certain conviction made against him by the Justices for the Petty Sessional Division of Llangollen on the 7th October, 1912, whereby he was convicted of unreasonably causing unnecessary suffering to certain animals, to wit, four cows, by omitting to give them proper and necessary care and attention, and was fined £5 and costs.

Mr. Trevor Lloyd appeared for the appellant, and Mr. Austin Jones for the respondent.

Counsel agreed that the necessary notices had been duly served, and the Clerk of the Peace pointed out that the Justices were not represented.

Mr. Trevor Lloyd asked who Mr. Austin Jones represented.

Mr. Austin Jones said he would also like to know who Mr. Lloyd was instructed by.

Mr. Trevor Lloyd said that as the Justices were not represented he took it for granted that Mr. Jones appeared for the Royal Society for the Prevention of Cruelty to Animals.

Mr. Jones replied that that was so, and while he appeared for the Society he realised that Mr. Lloyd appeared for the Great Western Railway Company.

Mr. Trevor Lloyd said he did not deny that, and now they knew exactly where they stood, and that the justices were not represented. As this was practically a new trial, Mr. Jones would open the case.

Mr. Austin Jones then addressed the court, and said it was a very important case for all parties, and particularly so for the appellant, who was the stationmaster at Chirk on the Great Western Railway. The proceedings at the Police Court were taken under the Protection of Animals Act, 1911, which laid it down that a person was liable to penalties if he did wantonly or unreasonably cause cruelty or omitted to do any act which caused unnecessary suffering to animals.

Mr. Trevor Lloyd said that the appellant was charged at the police court with causing unnecessary suffering to the animals. That was the whole charge.

Mr. Austin Jones quoted the section of the Act, and said that it was alleged that the appellant caused the unnecessary suffering to the four cows by not feeding, watering, or milking the cows for a period of 26 hours. It was contended by the prosecution that he had consequently brought himself under the section of the Act. The facts were that on August 30th a man named Smith consigned from Birkenhead four milking cows to a Mr. Edwards, a farmer near Chirk. The animals were not trucked by Mr. Smith, but by a man named Fleming, a servant of Smith. Mr. Smith wired to Edwards that the cattle would arrive at Chirk at about two or three o'clock.

Mr. Lloyd said he admitted a wire was sent but who sent it was disputed.

Mr. Jones continuing, said that on receipt of the wire Mr. Edwards sent his man Jones to the station for the cattle, but the station-master said there were some cattle there which had to be shunted, and it was not until later in the day that the animals were so shunted. The stationmaster also refused to allow the man to take the cattle until 16/- was paid for the carriage. The man waited until about 7 o'clock and then went and told his master. It was then too late for the master to do anything, but he wrote a letter to the stationmaster telling him that unless the cattle were untrucked he would hear more about it. Mr. Edwards also wrote the same night to Smith, who turned up the next day. Mr. Edwards was in the habit of taking milk to Chirk station, and the next morning at about 9 o'clock he went down to the station with his man. He found that the cattle were still in the truck, but a partition had been removed and a porter was giving them some grass pulled from the side of the line. Mr. Edwards noticed that the cattle were in a famished or starved condition and he at once sent for Mr. Platt, a veterinary surgeon, of Llangollen, who would tell the court that the animals were suffering. That they were in a famished condition and that one was suffering from congestion of the udder. The bottom of the truck was in a dirty filthy state, and the cows were hollow and weak and had not been milked. The cow which was in pain and suffering from congestion of the udder was lame in consequence. The prosecution alleged that the stationmaster was responsible for the condition of the animals and that he had by his conduct caused them unnecessary suffering. It would be proved that the cattle were perfectly healthy when they left Birkenhead and that their condition was caused through their being left so long in the truck unattended to. Although the stationmaster said he had done the best he could and that the cows had been milked and attended to, the prosecution alleged that they were not milked and that the only feed they had was the little grass given them which Mr. Edwards and his man saw in the arms of the porter when they arrived at the station. If the cows had been

milked or given food there would have been evidence in the truck. The cattle would have trodden some of the grass into the manure, and had they been milked the albumen in the milk would have left a mark on the truck or on the ground, and none was found. It was submitted that what the stationmaster should have done was to have untrucked the animals and to have fed and milked them, as dairy cows were regularly fed and attended to. Had the stationmaster no accommodation at the station he could have taken the cattle to the Hand Hotel close by where there were plenty of stalls. A point had been made that there had been a difference between the stationmaster and Mr. Edwards about certain matters and that Mr. Edwards had out of spite informed the inspector of the Society for the Prevention of Cruelty to Animals, but that was not so as it was Mr. Platt who informed the inspector, considering it his duty to do so when he saw the condition of the animals. The real facts of the case were that as Mr. Edwards had not paid for the carriage of the animals the stationmaster refused to release them and so he was responsible for what occurred. It seemed that the stationmaster had thought more of the 16/- than he did of the sufferings of the animals and was guilty of very high handed conduct. The railway company could always look after themselves but poor brute beasts could not do so, and they should be protected. He submitted that the stationmaster by what he did, or omitted to do, had been guilty of callous, wanton and unreasonable conduct in not feeding, milking, and watering the animals, and he asked that the appeal should be dismissed.

Mr. Austin Jones said that Mr. Edwards was unable to attend the court that day, and he produced a doctor's certificate to the effect that he was suffering from a cold. Mr. Edwards was in court the previous day.

It was agreed that the evidence given by Mr. Edwards at the police court should be read over, and this was done.

In his evidence Mr. Edwards alleged that there were six inches of muck in the truck when he saw the animals on the morning after they arrived, and when he took out the cattle they were in a famished condition. In consequence of what he saw he sent for Mr. Platt, the veterinary surgeon. In cross-examination he admitted that he was in the habit of sending milk by train, and that he had given the company a cheque which had been returned marked "R & D." It was for 30/-, while another for 8/7 was returned marked "No Account," while a postal order he alleged he had sent to the company had never been received, but he denied that he was told his credit with the company was stopped.

The cheques were produced and handed to the court.

Edward Jones, a farm labourer, in the employ of Mr. Edwards was called and examined by Mr. Jones. He said the stationmaster or someone else connected with the station refused to allow him to take the cattle until the carriage was paid. He waited about the station until the cattle were shunted, and he left at about 7 o'clock. He went down with his master the next morning at about 9 o'clock and saw a porter giving them a handful of grass. He saw the cattle untrucked, and they were in a low condition. They had had very little food, and he saw no signs of the animals having been milked. He tried to milk the cows when he got them home, and one was in pain, but "not all that much." The condition of the animals was caused by their standing in the truck so long.

In cross-examination by Mr. Lloyd the witness said the cows suffered from garget of the udder, caused by curdled milk. Questioned as to how long it would take it to show, at first he said it would show after 40 hours, then that it would take a fortnight to show, and then said that it would show directly.



Mr. Lloyd said it was clear that the witness did not know much about the question.

In further cross-examination the witness said he had not heard Mr. Edwards threaten what he would do with the stationmaster, or that he would get the stationmaster the sack. He said he came to the conclusion that the cows had not been fed as he did not see any marks of food in the trucks. He asserted that there were six inches of filth in the trucks, but said his master had not told him to say that.

Mr. Lloyd put in a photograph of the truck, and asked the witness if he realised that six inches of muck on the floor of the truck would represent 30 cwt. He said he did not know. He added that he was sure that the cows had not been watered as they went for water as soon as they left the truck, but afterwards he said some went for water and some for grass. As to the garget of the udder, he believed it was caused through cold.

In reply to the Chairman, the witness said the cattle would have to go about a quarter of a mile to find water, but the grass was close by. He described the depth of filth in the truck as being as deep as his first finger.

Robert Smith, cattle dealer, Oswestry, said he consigned the cattle to Edwards, but he did not see them off. He had seen them previously, and they were then well and hearty. He was sure there was no garget of the udder then. He had a letter from Edwards the day after the cattle were sent off and went to Chirk to the station. He paid the carriage for them as he considered there would be harm done in keeping the cattle in the truck as they had been there 26 hours since leaving Birkenhead. He looked over the top of the truck and saw that it was very dirty. The cows looked hollow and thin, and they did not look like the same cows. He considered that their condition was due to want of feeding and want of water, and because they had been all night out in the waggon. He saw no signs of food, nor of milking, but he only looked over the side of the waggon.

In cross-examination by Mr. Lloyd the witness fenced a great deal with the question as to who owned the cattle and what was the price. He said the cattle were not sold unless Mr. Edwards could find money for them. They did not give as much milk as the dairymen of Liverpool wanted and so they were lent to Mr. Edwards for their keep, Mr. Edwards to take the milk. Fleming was to have sold the cows, but he did not do so. If Edwards had money to buy them at some future time they would be sold to him at market price. Mr. Edwards could either keep them for milk or beef. He denied that the cows were sent away because there was something wrong with them and that they were not of the best. He could not say what he wanted for them, but he knew the cost price. The best cost £16 10s.

Mr. Lloyd pressed for the price of the worst, and mentioned £9 10s., and the witness said they averaged £14 to £15. He could not say what the worst cost, it might have been £9 or £10. He contended that even a well-fed cow would become hollow if left for 30 hours without food.

William Fleming, licensed dairyman, of Liverpool, gave evidence to sending the cows by rail, and said they were in good condition. When questioned he gave particulars of the way dairy cows were fed, and the number of meals and water they had per day.

In cross-examination the witness admitted that he had signed a statement to the company that he sold the cows to Edwards through Smith, whereas they were only lent to Edwards and belonged to Smith. He added that he had sold cattle previously and sometimes had commission, but no arrangement was made in this case, although he might have had commission eventually when the cows were sold. He did not know the price. He had some entries in a book, but he had left it at home the previous night when he changed his clothes.

While £9 10s. would be a low price for a cow he had as bad a cow as any sent to Chirk in his licensed shippen at Liverpool. He admitted that there were at least two lies in the statement he had given the company.

Robert Platt, M.R.C.V.S., Llangollen, was called, and said he had been in practice for seventeen years, and had had a great deal of practice with dairy cattle. He received a message from Mr. Edwards and went to Chirk station. The cattle had just been unloaded. He examined the truck and found it covered with manure from the cattle: it was in a filthy state. He saw no sign of hay trampled in the manure, but he saw a little grass trampled in the muck. He could only discover a few blades of grass. Three of the cows were grazing on the side of the road, and one cow was not. It was in great pain from inflammation of the udder. The appearance of the cows was hollow and empty, but the general condition was fair. The condition was due to the cattle not having been properly fed, the flanks were empty.

In reply to the Chairman as to whether the cattle had or had not had food recently, the witness said the flanks were empty showing that the stomachs had not sufficient food.

Replying to Mr. Jones' further questions, the witness said that the condition of the animals showed that they had not been properly fed for 24 hours. He could not say if they had been starved before that. The cow which was in great pain had inflammation of the udder, the milk was curdled which he tried to draw from the udder. He had difficulty in getting milk from her. Inflammation of the udder was due to several causes, overstocking or injury, especially overstocking or improper milking. If the cow had not been milked for 27 hours it would in his opinion be the reasonable result. If cattle were kept in a truck for 26 hours it would cause a certain amount of suffering especially to those having inflammation of the udder. Cows would lie down in proper stalls but he did not think they did so in cattle trucks. They would not suffer so much inconvenience through not lying down as from not being properly fed and milked. He saw signs of distress in the other cattle, and in his opinion they were suffering from improper feeding. The cows could not have been fed in the truck. He did not think that the cows had been milked in the truck as that could would be quite an acrobatic performance. He did not see any signs in the truck or on the ground of the cows having been milked there. Had they been so milked he would have expected to have found some signs there, and he did not. Stains of milk would remain for a long time, and they would have been trampled in. The signs would have been visible on the sides or on the ground under or by the side of the truck. He was of the opinion that the inflammation came on suddenly and was not of long standing as the cow was lame, which was the case when it was acute. If the cause was old standing the cow would not have been in such pain. Chronic cases were not so painful as new cases. He gave information to the inspector of the Society. He telegraphed for the inspector, as he considered it his duty to do so, because the animal was suffering.

In cross-examination the witness said he had a telegram from Mr. Edwards in the first place. He did not notice that the stationmaster and Mr. Edwards were cross. Mr. Edwards was not cross to the stationmaster that he noticed. He said that the cows had not been properly milked from the condition of the udders. As to whether it would not have been better to have milked the cows at the station he was under the impression that Mr. Edwards milked them to relieve a small quantity. Asked as to whether he would stake his professional reputation that the cows had not been milked three hours previously the witness said they had not been properly milked. It might have been done by

someone who was not experienced, and as to its being an acrobatic feat he asked counsel to imagine a man standing amid manure with four strange cows not fastened up trying to milk them.

The Chairman here intimated to counsel that he need not labour that point.

In further cross-examination the witness said he milked a small quantity by the station road. He did not milk into a vessel, and as to that being an acrobatic feat he would point out that three of the cattle were busily grazing. Asked if that appeared that the cattle were looking for water when they went for grass, the witness said he did not see any water about. If there was any water about the cattle went for it if thirsty; if there was water about the cattle could smell it and would go for it. It was difficult for him to say whether the cattle had been watered or not. He did not find any evidence of it. The cows were not running at the teats with milk, and it was not usual when they were overstocked to do so, as it all depended on the nature of the animal. It depended on the udder. Some cows when overstocked would lose little milk while others would lose it if not overstocked. These were ordinary dairy cows. He came to the conclusion that the oldest was about seven years. There were five rings to the horn, and adding two for the first calf he came to the conclusion that she was seven or eight years. The cow was in great pain with inflammation of the udder, and it would be difficult to draw milk in that condition. He did not think it cruel on the part of Edwards to drive the cow home as it was lame from the condition of the udder and walking it would relieve the tension on the udder. He could not say how long it would take a cow supposing it was ten years old to get into that condition from the time it was milked. He would have to know whether the cow was recently calved or getting dry. He did not quite agree as to there being six inches of muck in the truck, but there was a tremendous lot from four cows in twenty hours. It was rather exaggerating to say there were six inches. The muck was spread equally over the floor, and he examined it carefully and he saw very little food. It was not true to say the cows had been fed. If the food were put in buckets it would have left marks. Asked whether he agreed that garget of the udder might be in a cow without any external signs, the witness said tuberculous garget might be there but not acute garget. Asked how it would show itself, he said there would be heat in the first place, swollen

glands, tenderness, and pain. Asked to define mammitis he said it was the same thing as garget, it was inflammation of the mammary vessels. He did not think that it existed when the cows left Liverpool. This was too acute for it to have existed so long. £9 10s. was a small price for a cow, but it depended on its condition, its milking capacity, and whether in milk. A cow at that price might have a very small milking capacity. He did not say there would be something wrong as the cow might not be properly developed. The average price was £16 upwards, if with calf £20. These were not pedigree cattle, but half-bred, three roans and one red. Asked how long it would take for the hollowness to show, the witness said it would commence as soon as the cow commenced to chew the cud, and go on until part of the rumen was empty. He did not see the cows chewing the cud. Asked whether emptiness of the rumen showed soon he said he had known cattle starve to death with the rumen half full. Ruminating was suspended as soon as the stomach was half-empty. The capacity of the rumen was about 20 to 30 gallons. He did not think that the cattle suffered through being out in the truck but through improper feeding and milking.

Inspector Henry Mutton of the R.S.P.C.A., said he went to see the cows on hearing from Mr. Platt, and found one of them lying down on some straw. With the assistance of Mr. Edwards he tried to get it up, but it got up with difficulty. He felt its udder, it was hot and tender and the veins were swollen. It was with difficulty the cow was got to walk. It was then 2 o'clock in the afternoon and he noticed it was not chewing the cud. It had been recently milked. He afterwards saw Owens, who said he would not let Edwards have the cows as he owed 16/- for carriage. Owens also said he had fed and milked the cows the best he could.

In cross-examination, Mr. Lloyd drew the witness's attention to the fact that at the police court he had not stated that he noticed the cow was not chewing the cud, and he replied that he was not asked. Mr. Lloyd then reminded him that he had not been asked that day, but evidently heard references made to chewing the cud and mentioned it. The witness said his reference to it had nothing to do with what he had heard that day. He did not mention it before as the evidence was strong enough. He took particular notice of it at the time but did not mention it to the magistrates.

This was the case for the respondents.

(To be concluded.)

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
G.T. BRITAIN.													
Week ended Jan. 4	11		14				5	15	81	189	15	18	629
Corresponding week in	1912	19	24				6	11	220	604	20	49	393
	1911	10	10				5	8			27	31	316
	1910	36	40				5	12			50	32	90

† Counties affected, animals attacked: Berks 1, Derby 11, London 3.

Board of Agriculture and Fisheries, Jan. 7, 1913.

IRELAND. Week ended Jan. 4	...	...	...	...	...	...	...	...	9	21	5	35
Corresponding Week in	1912	...	1	1	...	...	...	...	4	21	3	5
	1911	...	...	...	...	...	...	...	1	8	4	17
	1910	...	...	...	...	...	...	...	4	27	...	85

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Jan. 6, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



**New Secretary of the Board of Agriculture.**

We are officially informed that Sir Sydney Olivier, K.C.M.G., Governor of Jamaica, has been appointed to be Permanent Secretary of the Board of Agriculture and Fisheries.

Sir Sydney Olivier, who succeeds Sir Thomas H. Elliott, was appointed Governor of Jamaica and created a K.C.M.G. in 1907. He was born in 1859, and, after being educated at Tonbridge School and at Corpus College, Oxford, entered the Colonial Office (heading the open competition) in 1882. From 1890 to 1891 he was Colonial Secretary to British Honduras and Auditor-General of the Leeward Islands in 1895-96. In the following year he acted as private secretary to Lord Selborne, and in 1897 was appointed a member of the West India Royal Commission. He was sent to Washington in 1898 to assist in the Reciprocity negotiations on behalf of the West Indian Colonies. From 1899 to 1904 he was Colonial Secretary of Jamaica and was Acting Governor in 1900, 1902, and 1904. Between that date and his appointment to the Governorship Sir Sydney Olivier was Principal Clerk in the West African and West Indian Department of the Colonial Office. His salary as Governor of Jamaica has been £5,000 a year, whereas in his new post he will receive a salary of £1,500.

From 1886 to 1890 Sir Sidney Olivier was secretary of the Fabian Society, and, amongst his numerous publications, he has contributed to Fabian Essays and Fabian Tracts.—*The Times*.

The appointment of Sir Sydney Olivier as the Permanent Secretary of the Board of Agriculture is an experiment of the daring order, and should result in the infusion of an entirely new spirit into the department. Sir Sydney Olivier comes to his new work with no special experience of agriculture, but with a reputation for sound sense and administrative vigour won in a long connection with the Colonial Office and as Governor of Jamaica. He is one of the men in the Civil Service who are capable of original things, and should prove invaluable in seconding the President of the Board in the progressive policy which he has shown a disposition to adopt. Things in the past have got rather into groove at the Board of Agriculture, and the bringing in of an outside administrator of the first order should help to change the whole spirit of the office.—*The Westminster Gazette*.

**REVIEWS.**

**THE BEGINNER'S GUIDE TO THE MICROSCOPE.**—By CHAS. E. HEATH, F.R.M.S. Pp. 119. Price 1/- net. (Percival Marshall & Co., 26-29 Poppin's Court, Fleet Street, London, E.C.)

This little book, as its title indicates, is designed to serve the absolute novice in microscopy as a first elementary introduction to the subject. Its contents therefore comprise a variety of subjects—the instrument itself and its chief accessories, the choice, use, and care of a microscope, the formation of images, critical and dark ground illumination, mounting, the examination of unmounted objects, microscopical recipes, and some hints upon the use of the microscope at the seaside and upon microscopic aquaria. There are between forty and fifty illustrations, chiefly figures of microscopes and apparatus, and diagrams showing the use of the latter.

The whole work is of course exceedingly rudimentary, and may be dealt with in a few words. It is well and pleasantly written; and to a certain extent—especially in the sections upon the actual use of the microscope, and upon optics—it will undoubtedly be useful to the

veterinary student just beginning to use the instrument, but it must be noted that within its small space it includes many subjects—such as the binocular microscope, polariscopy, the paraboloid and spot lens, and the examination of opaque objects by direct light—which may safely be neglected by the veterinary student. On the other hand, as it deals solely with the use of low powers upon objects in favour amongst amateur microscopists, it in many respects falls short of the earliest requirements of veterinary work. It is likely to be more useful to those proposing to take up the microscope as a hobby than to those commencing professional studies with it. But within its limitations, it may safely be said that it will repay its trifling cost to even the veterinary student who is obliged, as many are, to begin microscopical work without any previous knowledge of its rudiments.

**THE MICROSCOPE AND SOME HINTS ON HOW TO USE IT.** E. LEITZ. London office: (Oxford House, 9 Oxford Street, W.)

In this little booklet, the firm of Leitz have attempted "to furnish a first introduction to a more advanced use of the microscope," affording the research worker "only so much practical knowledge as will ensure a satisfactory measure of success in its use." In other words, the idea is to provide the scientific investigator with a condensed summary of the working principles of microscopy. Such a book is not unnecessary; for it is undeniable that many medical men and veterinary surgeons attempt research work with only a very vague knowledge of microscopic optics in particular. These will find the present little volume a great help.

After an initiatory and very short description of the microscope itself, about three pages are devoted to tracing the path of a pencil of light through the tube and lenses of the instrument. This is followed by longer sections upon the complex questions of aperture and resolving power, both of which of course require very careful reading, but are written as clearly as the nature of the subject will allow.

Then we have succeeding sections of varying length upon magnification, illumination, objectives, eye pieces, focussing, and micrometry, with a concluding page of general hints for the practical use of the microscope. Naturally, the figures of apparatus, tables of powers and apertures, etc., the firm's own products are chosen as illustrative examples, but otherwise there is little of advertisement in the book. It is a solid, concise little guide to the main principles of microscopic optics, and will be of great use to many who, while not being expert all round microscopists, yet more or less frequently require to make serious use of the microscope in their work.

W. R. C.

*The Live Stock Journal* has again collected from butchers reports upon the carcasses of exhibits in the cattle and sheep classes at last month's Smithfield Show. Almost without exception, the quality of the meat is well spoken of, there being about the right proportions of lean and fat, while the meat was firm and was free from waste. The majority of the cattle exhibits yielded carcasses weighing from 63 per cent. to 70 per cent. of their gross live weight, and two prominent prize animals exceeded 70 per cent. The best return so far, was 74.20 per cent. by the huge Hereford steer which won the second prize in the senior class for Sir John Cotterell. This bullock, at 2 years 9 months 9 days, weighed just over 19½ cwt., having the extraordinary daily gain in live weight of 2.16 lb. He was the heaviest animal in the hall, and a carcass weight only a fraction below the best ever recorded at Smithfield is wonderful for an animal of his size.

**Personal.**

At the first winter meeting of the Khartoum Racing Club, held recently, four out of the five races on the first day fell to officers of the Veterinary Service, among them the Kerreri Cup, won by Major Carr's "Greyleg" ridden by Capt. F. Fail.

**PRESENTATION.**

An interesting presentation took place on Friday afternoon, Jan. 3, at the Lairages, when Mr. J. W. T. Moore, F.R.C.V.S., was the recipient of a gold signet ring and handsome rose bowl (the latter for Mrs. Moore) on the occasion of his retirement from the Lairages. Mr. Moore, who is the principal veterinary officer of the Board of Agriculture at Liverpool, has been connected with the Woodside Lairages since 1879, when they were first opened, except from April, 1885, to May, 1901, when he was transferred to Newcastle. He was due for retirement under the age limit at the beginning of September last, but at the request of the Board of Agriculture, and owing to strenuous times, he consented to remain on duty till the end of the year. The total number of oxen dealt with by Mr. Moore during his period was 2,808,000, sheep 2,072, and pigs 85,000. The foreign trade reached its summit in 1904, when 279,000 oxen and 275,000 sheep were landed, but declined steadily after that, the year 1912 being the lowest on record, when only 19,000 oxen and 14,000 sheep were landed. Since the 8th July last, however, Irish cattle have been landed, and the year bids fair to exceed even the best year of the foreign trade. Up to the end of last year 140,000 oxen and 335,000 sheep have been landed from Ireland.

Mr. Roddick, in making the presentation on behalf of the Foreign Cattle Traders' Association, said Mr. Moore had been with the trade from the very start, and he hoped he would live for many years to enjoy his well-earned rest. He was sorry that Mr. Fraser, the President, could not be there to make the presentation, but he (the speaker) sincerely trusted that their present would remind Mr. Moore of the days he had spent at the Lairages. (Applause).

Mr. Brown said they were all very glad to have the opportunity to make the testimonial to Mr. Moore, but on the other hand the Association was sorry to see him go. Everything in connection with Mr. Moore had been very pleasant, and he wished Mr. Moore many happy years of retirement. (Applause).

Mr. Robinson, as one of the oldest associates of the Lairages, endorsed all that had been uttered. Mr. Moore, he said, had done his duty nobly, and he often wondered how he had kept up with the very strenuous work. He wished him good health and long life. (Applause).

Mr. McCracken, wharf superintendent of the Mersey Docks and Harbour Board, said it was a matter for regret when he heard that Mr. Moore was going. He had known him since before the Lairages were opened, when cattle were landed at the Huskisson Dock, and they both had seen the trade rise and fall. He wished Mr. Moore and his wife long life and happiness. (Applause).

Mr. Moore said he was very deeply indebted to all the subscribers for the magnificent gifts to himself and Mrs. Moore. They had all seen a great many changes at the Lairages, but he hoped he would live to see the day when they would be full again. In his successor they would find a man who would do all he could to further the interests of the Lairages. He (the speaker) had always received every kindness and help from everyone connected with the business, and he wished to thank them for that valuable help. (Applause).

A vote of thanks to Mr. Roddick for presiding concluded the proceedings.—*The Birkenhead News*.

**ARMY VETERINARY SERVICE.**

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Jan. 3.

REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. C.J.H. H. Jolliffe is restored to the establishment. Dated Dec. 30 1912.

Jan. 7.

Qr.-mr. and Hon. Lieut. R. C. Fenton, half-pay list, is placed on retired pay. Dated Dec. 26, 1912.

Maj. F. U. Carr, A.V.C., who holds the appointment of Principal Veterinary Officer, Egyptian Army, has been granted the temporary rank of Miralai (Colonel).

The following officers arrived from India on the dates stated against their names and have been posted to the stations as under:—

Capt. T. Bone arrived 27th Dec., and Capt. W. N. Rowston on 2nd Jan.; they have been posted to Dublin.

Capt. H. C. Stewart arrived 2nd Jan. posted to Tidworth.

Capt. W. J. Dale has been transferred from Woolwich to Aldershot for duty.

**OBITUARY**

WILLIAM REYNOLDS JERMYN, M.R.C.V.S., Clifton, Bristol  
Lond: April, 1865.

The late Mr. W. R. Jermyn, whose death is reported, at the age of 72, was an old Army man, and was a familiar figure driving throughout the streets of Bristol, seated on the left side of his pony trap. He was to be seen at all hours of the day and night in and out from the country on his professional visits. For very many years Mr. Jermyn had occupied the premises in Queen's Road, Clifton, with large yard at the back of the old house which formerly stood on the site of the bank and shops immediately opposite the Queen's Hotel. At the time it was said that the old villa was haunted by the ghost of a white lady, and crowds used to assemble nightly in front of it. Mr. Jermyn was accounted a most skilful surgeon, and his services were greatly in request, both in town and country. A kindly, genial, though apparently gruff-mannered man, his weather-beaten face and bent figure will be much missed by the older generation, and perhaps by the younger who knew him. The interment took place on Tuesday.

ROBERT WILSON, M.R.C.V.S., 82 George Street, Glasgow  
Graduated, Glas: April. 1867.

Mr. Wilson died on Dec. 29th, from cancer of the throat. Aged 61 years.

**VETERINARY HISTORY OF THE WAR IN SOUTH AFRICA.**

Sir,

My apologies are due to Mr. Huband, and many others, for failing to record their war service. The fault does not really lie on my shoulders; there have only been odd notes and memory to draw upon.

If those who have served in the war will kindly let me have a record of their service, in response to my advertisement, many gaps will be filled.—Yours faithfully,

THE EDITOR.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1280.

JANUARY 18, 1913.

VOL. XXV.

## THE COUNCIL MEETING.

Last week's Council meeting was short and quiet. Not much business was transacted beyond the reception and adoption of Committee reports, but some of these are noteworthy.

Examination questions were largely to the fore, and two matters came up which will awaken wide interest in the profession. The first, in the report of the Examination Committee, relates to the preliminary examination. The recommendation of the Examination Committee, stated briefly, seems to be to maintain our matriculation standard exactly as it is at present—not to lower it, but not yet to raise it to keep pace with the advancing requirements of the medical profession. In the words of the President, "This is only a pious resolution," which it is proposed to confirm by an alteration in the bye-laws. Meanwhile we have time to consider and discuss it.

The second question is even more important, viz., the report of the Fellowship Degree Committee. This body has not yet issued its final recommendations, but its members have decided to reveal their present intentions in outline before working out a detailed scheme. Probably this was done with a view to evoking criticism, and we think the Committee have been well advised in taking the Council and the profession into their confidence. Substantially, their proposals amount to a revision of the Fellowship regulations, the creation of a new Public Health Diploma quite apart from the Fellowship Degree, and application for a Charter to provide for these innovations. Here again we have time to think and discuss. The proposal is a very attractive one, but it must be admitted that to obtain a new Charter before we pass our Bill would make a sensible reduction in our rapidly dwindling capital.

The Council, while not altogether satisfied with the clauses concerning our profession in the pending Milk and Dairies Bill, have apparently decided that to attempt to alter them might ultimately prove disadvantageous to us. Probably this is a politic decision, though it is hardly likely to be a popular one.

Lastly, there are two little items which will give personal pleasure to many readers. Despite the straitened finances of the College, it has been found possible to vote a gratuity to the Secretary. All will agree that this has been well earned, and hope that ere long the passage of the Bill may enable the Council to permanently increase the Secretary's present small salary. And certainly many practitioners will join the Councilmen in congratulating Mr. Slocock, a popular member of Council, upon the gaining of the Williams Memorial Prize for 1912 by his newly-qualified son.

## TUBERCULIN.

During the last two or three years I have been led to believe, rightly or wrongly, that the results obtained in testing vary according to the source from which the tuberculin used is obtained. With tuberculin obtained from one maker I have invariably had good results—a good majority of the herd tested not reacting to the tuberculin—whilst with that received from other makers the large majority of the herd tested has reacted to the tuberculin. Accordingly, with the consent of a client who has been accustomed to have his "calving" heifers tested each year before placing them in his dairy-byre, and keeping out those which "failed," I have made a test of tuberculin together with a test of his cows. The client wished to have all his dairy cows retested last autumn to see if they were still keeping right. None of these cows have been in the dairy byre over four years (some only one year) and every one passed the test, as above stated, before being placed in the dairy herd. The byre is a new one, and had been built to satisfy the requirements of the sanitary authorities. The in-calf heifers each year have been tested with tuberculin from the Pasteur Institute, which I will name French tuberculin, and the results each year have been very good, only an occasional heifer failing. On October 3 and 4 of last year I tested eight heifers and 18 cows with French tuberculin. Half of the 18 cows passed the test with French tuberculin a year ago and the remainder two years ago. On the October test all the eight heifers passed, but 17 out of the 18 cows failed, which of course was extremely discouraging to the owner, who had done all he could to keep his herd free.

But there were still 16 cows in the dairy byre to retest, and I suggested that I should try tuberculin from another maker for these 16; to which he agreed. These 16 cows have been in the dairy-byre a year or two longer than the above-mentioned 18 cows, but were mixed up with them. I tested the younger cows only the first time, because I had not sufficient tuberculin in stock for the whole herd. The tuberculin was in sealed ampoules. The 16 cows now to be tested had more time to contract tuberculosis than the 18 previously tested. These 16 were tested on December 2 and 3 of last year with tuberculin obtained from Liverpool and which is made under the superintendence of Prof. Annett, of the University there, and with them I retested four of the seventeen cows which failed on October 4. This time all the tested cows passed without a single exception, including the four which had failed two months previously with French tuberculin. When testing cattle with tuberculin and some are

doubtful, it is advised to retest such doubtful ones after the lapse of a month, and accordingly it may be presumed that there will be no influence exerted by the first injection of tuberculin to interfere with the effect of the second injection at the end of that time. Seeing that the result with the Liverpool tuberculin was so good from the owner's point of view, he next wished me to retest the remaining 13 cows out of the 17 which failed with the French tuberculin on October 3 and 4, but this time to be tested with the Liverpool tuberculin. Accordingly I carried out this test on the 2nd and 3rd of the present month, thus allowing an interval of three months between the first and second tests, with the result that out of the 13 cows tested 12 passed and only one failed. Thus out of 17 cows tested twice, first with French tuberculin and after an interval of two or three months with the Liverpool tuberculin, only one failed with both kinds of tuberculin; the remaining 16, having passed when heifers, failed with the French tuberculin one, two or three years after, and then passed again with the Liverpool tuberculin after an interval of two or three months. It would be interesting now to make a second test with the French tuberculin of those cows which were only tested with the Liverpool tuberculin and which passed with it, but the owner intends to abide by the result of the Liverpool tuberculin, and to have no other tuberculin used for his cows in future.

The cows are of the Ayrshire breed and therefore smaller as a rule than English breeds. But in my experience of testing Ayrshire cows I have nearly always had good results with the Liverpool tuberculin, and discouragement to the owner with the French article. However, I had not very good results with the first test of a herd of 50 cows, which I made with the Liverpool tuberculin about three years ago, but that time the tuberculin was very dark in colour and I should have returned it if the owner had not asked me to test without delay and just to use it. But the second test of this client's previously passed cows last year was very satisfactory. I have tested a few Galloway bulls and cows with French tuberculin, and in this breed I have never had a reacting case. The dose of the Liverpool tuberculin is only 1 cc., whilst the dose of the Tuberculine Diluée of the Pasteur Institute in each sealed ampoule is 4 cc. I have frequently heard and seen reports in veterinary and agricultural papers of varying results got by different veterinary surgeons in this testing with tuberculin, more especially with regard to cattle exported to America, a number of beasts which have passed in this country before being shipped, failing when tested on landing. I even noticed some time ago that an Argentine veterinary surgeon was attaching the blame to British veterinarians. Is it not possible that the varying results got with different makes of tuberculin may account for some of the inconsistency. Perhaps other practitioners can give a similar experience on this subject.

Lockerbie, N.B.

J. W. POLLOCK, V.S.

## ABSTRACTS FROM FOREIGN JOURNALS.

### AGGLUTINATION AND COMPLEMENT FIXATION IN BOVINE CONTAGIOUS ABORTION.

Sven Wall, a veterinarian in Stockholm, has been experimenting upon the possibility of diagnosing contagious abortion by the methods of agglutination and complement fixation. He has tested the blood of 1097 cattle, and records (*Zeitschr. f. Infektionskrankh. u. S.W. d. Haust.*) the results. The earliest reaction which he could demonstrate appeared three months before abortion; and the highest value of the test seems to be reached at the time of or shortly after abortion, or, more rarely, one or two months previously. Cows which were tested within six months after aborting, showed reactions in 93.1 per cent. of the cases. Wall is of opinion that, in the remaining 7 per cent., the abortion had not been caused by Bang's bacillus, but by accidental agencies.

Of animals upon infected farms, which had not yet aborted and were over a year old, one-third reacted; younger animals showed 7.7 per cent. of reactions. Wall also demonstrated reactions in male animals upon infected farms.

In apparently uninfected farms, upon which abortion appeared sporadically, 27.3 per cent. of reactions were obtained. Wall concludes from this that a great number of cases of abortion which are supposed to be sporadic are really cases of contagious abortion.

On infected farms animals may react *without aborting*. Wall regards these as dangerous "carriers" of the bacillus, and recommends treating them as affected animals.

From his very accurate and extensive investigations, Wall considers himself justified in concluding that the combined use of the methods of agglutination and complement fixation, properly carried out, is, from the practical point of view, a completely reliable test for contagious abortion. The character of the test certainly demands that it should be executed in the laboratory; but Wall nevertheless thinks that it will assume great importance in practice, in the first place as a preventive to the spread of the disease to farms yet unaffected by it, and secondarily as a means of combating the disease, where it already exists, by a rational isolation of the reacting animals.

In the case of uninfected farms, all newly-purchased cattle should be tested before being placed with the others. When the bull used is not restricted to the cows of the farm, he should be tested several times in the year, so as to discover within a reasonable time if he becomes infected.

On farms where one or several cases of contagious abortion have been demonstrated, all animals of two years and over must be tested; and the reactors must be isolated as completely as possible. Infected stalls must be thoroughly disinfected, and the foetus, after birth, and exudate from a reacting cow must be made harmless by disinfectants, and

then buried as quickly as possible. After the expiration of a month the healthy animals should again be tested, in order to detect possible new reactors.

The isolation of aborting cows has of course been practised for a long time; but few have thought that cows which calve normally can be just as infectious as aborting ones; and this, Wall thinks, has particularly contributed to the spread of the disease. By the use of these blood tests this spread can be avoided.—(*Berliner Tier. Woch.*)

#### A HEPATIC BLASTOMYCOSIS OF GEESE.

Blastomycetes are vegetable organisms allied to moulds, and cause diseases known as blastomycoses in man and the domestic animals.

Martin and Daille report (*Revue Vétérinaire*) that upon two occasions they observed a blastomycosis in the "fat livers" of geese. The lesions were found upon the border of the liver, in the form of sacs varying from the size of a cherry to that of a walnut, ranging from fifteen to twenty in number, and closely adjacent to one another. Incision of these sacs showed a yellowish-white gelatinous mass of purulent aspect, in which the parasites were included. Under the microscope the parasites appeared extremely numerous. They were rounded or oval, some isolated and some in masses, refractive, and fairly often were in process of budding.

Cultures were made with the contents of the sacs upon glycerinated potato and upon bouillon at the temperature of the laboratory (8° to 19° C.). It was found that the parasites grew easily upon sugary media, such as carrots or preparations of glucose. The addition of certain substances, such as hydrochloric acid, sodium carbonate, or tartaric acid to the medium had no detrimental effect upon the development of the micro-organisms.

Experimental inoculations were made intravenously, intraperitoneally, and intramuscularly upon pigeons, guinea-pigs, and rabbits, with negative results.

The blastomycetes live a saprophytic existence upon vegetables, grains and fruits, and penetrate with the food into the organism of geese. The authors give the parasite they observed the name of *Cryptococcus anserinus*.—(*Annales de Méd. Vét.*)

#### THE TRANSMISSIBILITY OF PLAGUE FROM MAN TO THE ASS.

Dr. K. Matsuo, a medical man engaged in epidemiological work in Osaka, publishes (*Zentralbl. f. Bakt. u. S.W.*) an article upon the subject. In the course of an epidemic of plague which he observed in North Manchuria, he found that the disease was transmitted to asses, and studied in these animals in conjunction with Akagé, a veterinary surgeon. The disease in the ass assumed a pulmonary form, causing infiltrations in the lungs; and microscopical examination established the presence of plague. Almost all the affected animals Matsuo and Akagé observed had been used

for the work of flour mills, and they suggest that this employment may have acted as a factor predisposing to infection.

The disease appeared amongst human beings before it was observed in the asses, which may therefore have been directly or indirectly infected by mankind. It seems possible, also, that the converse method of infection—from asses to man—may occur. On that account Matsuo and Akagé call the attention of veterinary surgeons in particular to the ass as a factor in the dissemination of plague.—(*Berliner Tier. Woch.*)

[The ass has not hitherto been generally regarded as susceptible to plague. On that account the note is of considerable interest to veterinarians in some countries, and I wish that more details had been available to me.—TRANSL.]

#### LACTEAL SECRETION IN A HE-GOAT.

Mellis records (*Revue Vétérinaire*) the case of a he-goat possessed of all the attributes of his sex, but showing two well-developed mammae in front of the testes. These mammae gave a fairly abundant supply of milk, the owner affirming that he had drawn a tumbler-full several times daily.

The animal was slaughtered for food; and post-mortem it was found that all the genital organs were constituted normally. The mammae, in particular, had an anatomical structure exactly similar to normal mammae.—(*Annales de Méd. Vét.*)

W. R. C.

#### CASTRATION OF THE STALLION STANDING BY MEANS OF THE ECRASEUR.\*

By J. I. EDGAR, M.R.C.V.S.,

Government Veterinary Officer, Zoutpansberg.

I advise that the stallion to be operated on should on the previous evening and on the morning of the operation be given a sparing diet. A good loose box is the most convenient place in which to carry out the operation. The animal should be properly secured; for this the bridle with blinkers and twitch are all that is necessary. The twitch having been applied, the holder stands on the left side with his right shoulder against the near shoulder of the horse with the horse's head held inclined somewhat to the near side. The twitch should not be applied too severely, neither should the animal be held too firmly, as if such be done the result, at, or even before you have started the operation on the animal, may be that he will throw himself down. A medium control ought to be established, and should the animal show a tendency to move forward allow him to do so, but the holder of the twitch should counteract this forward tendency by making him move in a circle—the operator moving also—but both keeping their original positions. The operator stands on the left side, passes his left hand along the abdomen as far as the scrotum, grasps the right testicle and exercises strong and steady traction, gradually getting the testicle into a position easily to deal with; when in position a good firm grip is maintained and the scrotum is immediately opened with a knife in the right hand by a bold incision into

\* Read before the meeting of the Transvaal Veterinary Medical Association at Pretoria on 25th March, 1911.

the substance of the testicle, dividing all the coverings, and along its whole length from before, backwards, the wound being made well forward. The knife is then discarded; the left hand grasps the protruding testicle and spermatic cord while with the right hand the chain of the écraseur is passed over the testicle above the epididymis as high as possible and drawn tight without exercising any violent strain on the cord. The left hand is now employed in grasping the chain, testicle, and spermatic cord, while the right hand is used to turn the screw of the écraseur, dividing the cord above the epididymis. The second testicle is removed in a similar way, the operator making sure while applying the chain that no part of the scrotum is included. Immediately the actual operation is complete it is usual to splash the parts with a half bucket of cold water containing some antiseptic, then giving the tail one or two sharp pulls in an upper direction, both actions tending to cause retraction of the spermatic cords and the former to cleanse the parts. The actual time taken to the operation averages four minutes.

The horse ought now to be placed in a well-ventilated loose box and left quietly alone, and as feeding distracts attention from the operation it should be given some grass or hay to eat. The following and successive days the animal should be turned out to graze or exercise, and in the course of from eight to ten days' time after the operation should be put to light work again. Yearlings should be turned out in paddocks.

The object and the action of the écraseur is to crush rather than to cut the tissues, and the matter of the rapidity of screwing the instrument in my own opinion makes little material difference in the practical results obtained. Some operators, however, hold "that the action depends to some extent on the rapidity with which the process is carried out. The slower the movement the less bleeding. For this reason very vascular tissues should be very slowly divided and pauses should occasionally be made between each complete rotation of the screw; fifteen to thirty seconds may be allowed to elapse."

There are several forms of écraseurs; some good, others indifferent. All are not suitable for castration, and many have serious defects which you can readily realize by comparing this one belonging to the Agricultural Department with my own. The difference is palpable; the former being too wide in the mouth and having sharp cutting edges and would not produce the required crushing, which I consider of importance to arrest hæmorrhage. I would, therefore, recommend you to discard it in favour of the one similar to what I use; note its narrow mouth and blunt edges. Speaking about écraseurs, I prefer the Farmer Miles pattern with bevelled chain; it is the most practical instrument on the market, but to make it a complete and practical instrument I would suggest that Professor Dewar's patent catch be applied to it for the purpose of taking up the slack to do away with so much unnecessary screwing.

The usual dangers after the operation in this method are to be looked for as in any other method. They are (1) hæmorrhage from the spermatic vessels; (2) infective inflammation of the spermatic cord and extension causing peritonitis; (3) swelling.

Happily, I am unacquainted with the two former, only having had the usual swelling due to the retention of wound discharges to deal with. I find that the wounds close up so rapidly in this country that I now make it a point of having them opened on the third or fourth day after the operation; it is seldom that a second opening is required. The method of opening the wound is as follows:—The hands are well washed and the forefinger is smeared with antiseptic solution—preferably carbolic oil, the wound adhesions are broken down with the finger and any irritant discharge allowed to escape,

and finally, the parts are washed with clean cold water, containing some antiseptic solution.

An unusual danger that I have occasionally experienced, and more especially as a beginner of the operation, has been accidentally sending the knife into the internal saphena vein, which lies in the superficial inner aspect of the off thigh. In such a case the blood streams down the inside of the leg, but the hæmorrhage in such cases as I have witnessed has soon ceased without interference; the saphena artery which lies in front of the vein might also be accidentally opened through the knife slipping, but the chances are less of it being injured as it is a long and slender vessel.

Without in any way advocating one method of castration in preference to any other, my own experience of sixteen years, during which time I have successfully operated on many animals of the equine species of all ages, both at Home and in South Africa, has led me to come to the conclusion that the écraseur is a valuable instrument to the veterinary profession, and that used either standing or cast the method is quick and practical, and devoid of any real serious risk or danger; but as in all other methods, so in this one, one must never forget that handiness and cleanliness are the two principal factors in the secret of the success of the operation. I may mention that I have also been equally successfully with the écraseur in that most dreaded operation (from both the farmer and the transport-rider's point of view of castrating) in the donkey, but first casting and tying this animal. The best period of the year for the operation in the part of this country where I am stationed I consider between the first of September up to Christmas.

After the reading of the paper two horses were successfully castrated for exhibition.

## Royal College of Veterinary Surgeons.

A Quarterly Meeting of Council was held at the College, 10, Red Lion Square, London, W.C., on Friday, January 10th, 1913. Professor A. E. Mettam (President) occupied the Chair, and the following members were present: Col. Sir Francis Duck, Major-General Thomson, C.B., Prof. Bradley, Messrs. Abson, Banham, Burt, Carter, Clarkson, Dunstan, Garnett, Hobday, Lawson, Lloyd, McCall, McKinna, Mulvey, Price, Shipley, Slocock, Sir Stewart Stockman, Messrs. Sumner and Trigger, Mr. G. Thatcher (Solicitor), and Mr. F. Bullock (Secretary).

### MINUTES.

On the motion of Mr. McKinna, seconded by Mr. Abson, the Minutes of the last meeting, which had been printed and circulated, were taken as read and confirmed.

The PRESIDENT: Gentlemen, as this is the first meeting in the New Year, I would like to offer you the compliments of the season, and to hope that this coming year will be a successful one for the College and for the profession. (Cheers.) I would also like to voice here in the Council the great gratification with which the profession has heard of the honour which the King has conferred upon our colleague, Sir Stewart Stockman. (Cheers.) I know that he deserves this recognition from his Majesty. I am well aware and very conversant with the work that he has done, and it is peculiarly gratifying to me that this honour should be conferred upon him during my Presidency, when I remember the fact that Sir Stewart Stockman and I were students together; we were colleagues together in the Dick College, and since then we have been continuous and firm friends. In your name, and in the name of the profession, I

offer him our sincere congratulations upon this very worthy honour indeed that has been conferred upon him. (Cheers).

Sir STEWART STOCKMAN, who was received with cheers on rising to reply, said: Mr. President and Gentlemen, I hoped, after the very kind reception you gave me yesterday, I should not have to speak again to-day; but it gives me very great pleasure to say here again in the presence of the representative body of the veterinary profession that I received this honour with great appreciation, because I feel that it is not given to me, so much as given as a recognition of the work—the great work, I may say, in the last few years—that has been carried out for the country by members of the Royal College of Veterinary Surgeons. (Cheers).

#### APOLOGIES FOR ABSENCE.

The SECRETARY announced that letters regretting their inability to attend the meeting had been received from Principal McCall and Messrs. A. W. Mason and J. Share Jones.

#### OBITUARY LIST.

The SECRETARY read the Obituary List.

#### ADMISSION TO MEMBERSHIP.

The SECRETARY read the following list of members admitted since the previous Quarterly Meeting of Council:—

*Dublin College.*—Messrs. T. J. Carroll, W. L. Flanagan, M. J. Glynn, M. J. MacClancy, W. H. Power, T. F. Quirke, P. J. Sheil, W. P. Walsh, R. C. Wheeler.

*Glasgow College.*—Mr. P. J. Turner.

*Edinburgh College.*—Messrs. R. L. Armour, J. N. Cooper, F. J. L. Croudace, W. Dalling, R. E. Drennan, A. Q. Hall, S. E. Holmes, C. Nicholson, D. R. Williamson.

*Liverpool College.*—Messrs. V. A. Bartrum, R. Isherwood, A. D. Morgan, A. L. Pollard, J. W. Proctor.

*London College.*—Messrs. J. Bradley, S. E. Hill, C. J. R. Lawrence, R. A. Murless, W. E. Petty, W. F. Poulton, E. M. Robinson, S. L. Slocock, P. L. Thierry, U. W. F. Walker, S. H. L. Woods.

#### CORRESPONDENCE.

The SECRETARY read a letter from Major J. D. V. Holmes, dated December 2nd, 1912, acknowledging with thanks the receipt of the Steel Memorial Medal granted to him by the Council of the Royal College of Veterinary Surgeons.

The SECRETARY stated that circulars had been received from the Royal Sanitary Institute announcing the holding of a Congress at Exeter from July 7th to 12th, 1913, and inviting the College to appoint a delegate, and from the Secretary of the 10th International Congress of Agriculture to be held at Ghent, Belgium, in 1913, asking for a similar appointment.

The PRESIDENT: Do you desire to send delegates to these Congresses? No action, Gentlemen?

Mr. GARNETT: What is the second one?

The PRESIDENT: An Agricultural Conference at Ghent, Belgium. The Sections represented in the Congress are Section 1, Rural Economy; Section 2, Science of Agriculture, Special Crops, Agricultural Education; Section 3, Animal Industry; Section 4, Rural Engineering; Section 5, Forestry. No action, gentlemen? (Agreed to).

#### PRESENTATIONS TO THE LIBRARY.

The SECRETARY read the following list of Presentations to the Library since the previous Quarterly Meeting:—

Westmoreland Agriculture, 1800-1900, by Mr. F. W. Garnett; M.R.C.V.S.

U.S. Department of Agriculture:—Studies on the Biology of the Texas-Fever Tick; The Action of Anthelmintics on Parasites located outside of the Alimentary

Canal; The Roundworms of Domestic Swine, with special reference to two species parasitic in the stomach; Milk and Cream Contests. How to Conduct them, and how to prepare Samples for Competition; Directions for constructing Vats and Dipping Cattle to destroy Ticks.

Statistical and General Report of the Army Veterinary Service, for 1911; East Africa Protectorate: Annual Reports of the Veterinary Pathologist for the Years 1909-10, and 1910-11; Report of the Veterinary Surgeon to the Corporation of the City of Glasgow for 1911; *The Rhodesian Agricultural Journal*, October, 1912; Bulletin of the Yellow Fever Bureau, October, 1912; Index to Sleeping Sickness Bulletin, January-September, 1912; *Revue de Pathologie Comparée*, August, October, and November, 1912; *The Journal of the Board of Agriculture*, October, November, and December, 1912; Leaflets of the Board of Agriculture and Fisheries; Orders of the Board of Agriculture and Fisheries; *The Journal of Comparative Pathology and Therapeutics*, September and December, 1912; *The Veterinary Journal*, *Veterinary News*, and *Veterinary Record* for the Quarter.

On the motion of Mr. Mulvey, seconded by Mr. McKinna, a hearty vote of thanks was accorded to the respective donors.

#### FINANCE COMMITTEE.

Mr. LAWSON read the following report of a meeting of the Finance Committee held on Friday, Jan. 10th, 1913:—

*Financial Statement.*—The Treasurer submitted his financial statement for the quarter, showing liabilities amounting to £834 17s. 6d., and a balance in hand of £542 0s. 4d.

It was resolved: That the financial statement be approved, and that the Treasurer be ordered to pay the liabilities shown, together with cheques for insurance, monthly salaries, petty cash, gas, and electric light.

*Steel Memorial Fund.*—The Secretary reported the purchase from the accumulated funds in the Steel Memorial account, £85 Consols at a cost of £62 2s. 11d. The total amount now invested in the Steel Memorial Fund was £400.

*Donation.*—The Secretary announced the receipt of a donation to the funds of the College, amounting to £1 1s.

I should like to say that the Consols were bought at the lowest possible record—73. I wish I could invest my own money at the same rate and at the same price! I beg to move that the report of the Committee be received.

Maj.-Gen. THOMSON seconded the motion, which was carried.

Mr. LAWSON: I now beg to move that the report be adopted.

Maj.-Gen. THOMSON: I second that.

Mr. TRIGGER: Before that is put to the meeting, I hope the fact of our having at the present moment rather a large balance in hand will not mislead the profession into the belief that the College finances have improved. It simply means that we have not yet exhausted the sale of the last Consols which we were unfortunately obliged to sell. If it goes out to the profession that we have £500 in hand it will create a wrong impression, unless it also goes out to the profession that it is the unexhausted part of the Consols which we have sold.

Mr. MULVEY: Gentlemen, I am quite certain that you will acquit me of any wish to deal with the finances of the College in any other than a conservative way. My wish, and I am sure the wish of the Council, is that every care should be taken on every particular item of expenditure. But I am going to ask you to depart from the usual custom, and to make our Secretary a



gratuity. He has done much work—very useful work—in carrying out his duties to this College; and in addition to that there has been an extra strain put upon him during the last twelve months. Under those circumstances I feel warranted in asking you to grant him a gratuity of 20 guineas.

Mr. LLOYD: Mr. President and gentlemen, I have great pleasure in seconding the proposal of Mr. Mulvey, and I think I have good grounds for doing so from a financial point of view. As most of us are aware, our Secretary has turned the deficit on the publication of the annual register into an asset. Some time ago we lost a very considerable amount of money on each year's publication, whereas this year or last year we made a substantial increase—an increase amounting to considerably more than the honorarium which we propose to give. I think anyone who has experienced the tact, courtesy, and the great ability which the Secretary has shown in the despatch of his work cannot fail to appreciate his good qualities, and I therefore beg to second the motion proposed by Mr. Mulvey.

Mr. MULVEY: I should like to add to what I said just now that I brought this question before the Finance Committee this morning, and they passed this resolution: "That it be a unanimous recommendation of the Committee to the Council that an honorarium of 20 guineas be given to Mr. Bullock in appreciation of the extra services rendered during the past year. (Hear, hear)."

The PRESIDENT: Then, gentlemen, may I take it that the resolution which Mr. Mulvey has just read be added to the report, and that the report of the Finance Committee with that addition meets with your acceptance.

The resolution was put and carried unanimously.

The Secretary (Mr. Bullock), who was requested to retire previous to Mr. Mulvey moving his proposition, then re-entered the Council chamber.

The PRESIDENT: Mr. Bullock, I have very great pleasure in informing you that the Council have unanimously voted to you an honorarium of 20 guineas as an appreciation of the eminent and very satisfactory extra services which you have rendered to the Council and to the profession during the last twelve months (Cheers).

The SECRETARY (Mr. Bullock), who was received with cheers on rising to reply, said: Mr. President and gentlemen, I need hardly say that such an announcement was entirely unexpected on my part. I had forgotten the extra services I had rendered during the past year. I thank you very much for this indication of your constant care for my welfare, and I promise you that I shall always use every endeavour to serve you faithfully. (Cheers).

#### REGISTRATION COMMITTEE.

The SECRETARY read the report of a meeting of the Registration Committee, held on Thursday, the 9th January, 1913.

Under the heading of *Correspondence*, the report stated that papers were submitted containing testimonials or references alleged to be given by veterinary surgeons, and the Secretary was instructed in each case to communicate with the members in question asking if such publication of their names was authorised by them.

It was announced that a letter was received from Mr. George Thatcher, solicitor, announcing that he had taken his son, Mr. George Robin Thatcher, into partnership, and that the style of his firm would in future be Messrs. George Thatcher and Son.

Further correspondence was submitted, but it was decided in each case that no action could be taken.

*Cases.*—The Committee reported that they had considered 35 cases of various kinds. In five cases it was

resolved that a prosecution be instituted; other cases were ordered to stand over; others were struck out; undertakings were given in others, and in some the Solicitor reported that the offences had been discontinued. In the case of A. Wood, non-member, the Solicitor reported a prosecution with a conviction and a fine of £5 and costs.

In the case of a member charged with advertising, who had been called upon to appear before the Committee but was not in attendance, the case was adjourned, and the Solicitor was instructed to call upon the member to appear at the next meeting in April to show cause why his name should not be removed from the Register. In the case of a member who had been convicted of cruelty, it was resolved that he be called upon to appear at the next meeting to show cause why his name should not be removed from Register. The Solicitor reported that in the case of P. A. Stanley, unregistered graduate, a prosecution had been instituted and a conviction obtained.

The Solicitor also reported that a prosecution and conviction with a fine of £10, including 5 guineas costs, had been obtained in the case of E. S. Leggett, an unlicensed veterinary surgeon.

In the case of a member who appeared on a charge of covering and submitted an apology and an undertaking not to repeat the offence, it was resolved that an undertaking in due form be obtained.

The Solicitor reported that the complaint against two members had been discontinued, but that Mr. S. Bailey, whose name had been removed from the Register through non-compliance with Section 5, Sub-section (4) of the Act was advertising himself as a veterinary surgeon. It was resolved that the Solicitor be instructed to send a cautionary letter to Mr. G. Bailey.

*Publishing fictitious testimonials.* Letters were submitted from members of the College repudiating the statement issued by Messrs. Menley and James that they had given testimonials in favour of a veterinary preparation.

In the case of a member charged with advertising, it was resolved that the Solicitor be instructed to inform the member that the advertisement complained of was a breach of the Bye-laws, and to require an undertaking.

*Restorations.* (a) A application was received from Mr. J. Gosling for the restoration of his name to the Register, it having been removed under Section 5, Sub-section (4) of the Act. It was resolved that the name of Mr. John Gosling be restored to the Register of Veterinary Surgeons.

(b) An application from Mr. William Burney, whose name had been removed from the list of Existing Practitioners owing to an unnotified change of address, was received, and it was resolved that the name of Mr. William Burney be restored to the list of Existing Practitioners.

On the motion of Mr. McKinna, seconded by Maj.-Gen. Thomson, the report was received and adopted, and on the motion of Mr. Mulvey, seconded by Mr. Abson, authority was given for the seal of the College to be affixed to the various prosecutions mentioned in the report.

#### EXAMINATION SYLLABUS COMMITTEE.

Mr. MULVEY read the following report of a meeting of the Examination Syllabus Committee, held on Thursday, January 9th:—

The Examination Syllabus Committee met on Thursday, January 9th, to consider the Syllabuses, and report that progress has been made with the work of revision. The further consideration has been deferred till the next meeting.



On the motion of Mr. Mulvey, seconded by Mr. Lawson, the report was adopted.

Mr. McKINNA: May I ask how long it will be before the work of the Committee is completed?

The PRESIDENT: It will probably be a year before the thing will be completed; at any rate it will be some time. Good progress was made with the work yesterday.

Mr. MULVEY: I think it might be reasonable to expect it to be completed within the year at all events. I hope so.

#### EXAMINATION COMMITTEE.

Mr. MULVEY read the following report of a meeting of the Examination Committee held on January 9th, 1913:—

*Report on December Examinations.*—Reports of the Chairman of the Boards of Examiners, the delegates and Local Secretaries in connection with the Examinations in December, 1912, were read and approved. It was resolved—

(a) That the Secretary be instructed to convey the thanks of the College for assistance given in connection with the examinations at the various centres.

(b) That a hearty vote of thanks be conveyed to the authorities of the Liverpool College for their courtesy in arranging for the students in Classes A and C to take their Oral Examination at Glasgow.

*Correspondence.*—A letter was received from Mr. H. C. Rockett, a student in Class C at London, enclosing a medical certificate explaining his absence from the recent examinations.

It was resolved that the examination fee paid by Mr. Rockett be held over until July, 1913.

*Educational Certificates.*—Educational Certificates numbered 1311 to 1337 were submitted and approved.

*Preliminary Educational Examination.*—The Secretary reported the need of a revision of Schedule I. in the case of the Preliminary Medical Examination held by the Educational Institute of Scotland, in view of the revised regulations of the General Medical Council.

It was resolved to recommend that arrangements be made to continue the recognition of the examination on the standard in force in 1912.

*Prize Certificates.* It was resolved to recommend that certificates be issued to the prize winners in the FitzWygram, Walley Memorial, Jubilee Memorial, and Williams Memorial Prize awards.

On the motion of Mr. Mulvey, seconded by Mr. McKinna, the report was received.

Dr. BRADLEY: I move its adoption.

Dr. MCCALL: I second that.

Mr. GARNETT: I should like to draw attention to the last paragraph but one in the Report with regard to the Preliminary Examination. Hitherto we have been able to say that the Preliminary Examination of the Royal College of Veterinary Surgeons was of a standard equal to that of the medical profession. I think it would be a great calamity if we were to work in any way below that standard; and I simply ask for an assurance that the Resolution which we now pass will not convey that meaning—that it is not the intention of this College to lower the Preliminary Examination below that of the General Medical Council.

Mr. SUMNER: Up to this year.

The PRESIDENT: Before any alteration can be made, notice will have to be given for an alteration in the Bye-laws, and perhaps any discussion on that question can be raised at the time when the proposed alteration of Bye-laws is made. This is only a pious Resolution passed by the Examination Committee. I understand that notice of Motion is to be given of this proposed change.

Mr. ABSON: I think Mr. Garnett is probably quite right in raising the point, because there is an impression prevailing in the profession that we are going to lower

the standard of our Matriculation Examination, and I think it is as well it should go forth that that is not the case.

Mr. SUMNER: We are going to maintain the present one, but not advance in accordance with the Medical.

Mr. McKINNA: It is quite understood that this will necessitate the alteration of Bye-laws, because the Bye-law states that the Examination is to be on all fours with that accepted by the General Medical Council.

The PRESIDENT: There is no intention of lowering the standard of examination at all.

Mr. ABSON: We are more likely to raise it, surely.

Mr. CARTER: I understood that it would not be lower than what existed in 1912.

Mr. MULVEY: The examination is to be the same as that in existence at the present time.

The Resolution for the adoption of the Report of the Examination Committee was then put and carried unanimously.

#### PARLIAMENTARY COMMITTEE.

Mr. GARNETT read the following Report of a Meeting of the Parliamentary Committee held on Thursday, January 9th, 1913:—

*Revision of Bye-laws.*—The report of the Bye-laws Special Committee was submitted, together with a copy of the Bye-laws as revised, and it was resolved to recommend the adoption of the report.

*Public Bills.*—The following Public Bills were considered: Veterinary Operations (Anæsthetics) Bill; Irish Creameries and Dairy Produce Bill; Tuberculosis Prevention (Ireland) Bill; Milk and Dairies Bill; Registration of Stallions Bill.

And it was resolved (a) Veterinary Operations (Anæsthetics) Bill. That this Bill is not promoted by the Royal College of Veterinary Surgeons, nor has the College any responsibility for it.

(b) Milk and Dairies Bill. That the following Members of Parliament be requested to watch the Bill in the interests of the Veterinary profession, namely: Capt. G. L. Courthope, Mr. L. Sanderson, Sir Luke White.

*Public Veterinary Services.*—The Chairman submitted his report of the evidence given by himself and the Secretary before the Departmental Committee on the Public Veterinary Services, and it was resolved to recommend that the report be entered on the Minutes of the Council.

*Private Bills.*—The Aberystwyth Corporation Bill, and the Bradford Corporation Bill were submitted, but no action was considered to be necessary.

Mr. GARNETT: I move the reception and adoption of that Report.

Mr. MULVEY: I second that.

Mr. LLOYD: Not being a member of the Parliamentary Committee, I feel inclined to say a few words in regard to the Milk and Dairies Bill. The procedure adopted under the present Bill is one altogether different from the Bill that was withdrawn in 1909, and as that had nothing to do with veterinary surgeons I do not propose to say anything further in regard to it, except this, that I think, as drawn, the Bill is likely to cause considerable friction between local authorities. The position of the veterinary surgeon is of the stereotyped form as already passed in the Tuberculosis Orders of several local Acts of Parliament. It perpetuates the farce that the Medical Officer of Health has neither the time, ability or inclination to examine cows and take samples of milk. All through the thing I contend that the Veterinary Inspector has to take a back seat, and I think that this College is not doing its best for the welfare of the profession, and particularly of the whole-time Veterinary Inspector of Health, unless they do all they can to uphold the Veterinary Inspector. I do not feel inclined to take up your time, because there is nothing I can say which would cause very much effect, but still I am bound to utter a word of protest.

Mr. McKINNA: I hope our interests will be protected if the Bill is passed. I have confidence in our Parliamentary Committee, and also in those who are in charge of the Bill, to see that the interests of the profession are protected.

Mr. GARNETT: Mr. President and Gentlemen, in replying to Mr. Lloyd I may say that we recognise that we should, as a profession, like very much more than the position we have obtained in the Bill as drafted; but considering the Clauses as drawn there is no doubt that they are satisfactory to the profession if they are worked in the spirit in which they are drawn, and judging from the past there is no doubt that our position is sufficiently secure under this Bill to obviate any necessity of actual opposition to it. The raising of opposition and going for more than we can really claim and put forward, I think it would be a calamity not only to the Council but to the profession at large. We might find in the end that we were worse off than we are under the Bill as it is drafted. I only trust that this Bill may go through with regard to these special Clauses which refer to ourselves as it is drafted. We could have wished for more, but it certainly is the opinion of the Parliamentary Committee that it is not advisable to press our claims.

The Resolution for the adoption of the Report of the Parliamentary Committee was then put and carried unanimously.

#### FELLOWSHIP DEGREE COMMITTEE.

The SECRETARY read the following Report of a Meeting of the Fellowship Degree Committee, held on Friday, January 10th, 1913:—

*Chairman.*—It was resolved that Prof. A. E. Mettam be elected Chairman of this Committee.

*Reference.*—The Secretary read the Minute of Council constituting the Committee as follows:—

"That a Special Committee be appointed to consider and recommend the steps to be taken in regard to making further provision for Post-graduate courses in Veterinary Science, and the granting of a further Diploma."

It was resolved to recommend

(1) That the regulations governing the Fellowship Diploma be revised, and that a Diploma be instituted in Veterinary Public Health.

(2) That a further Supplementary Charter be applied for the purpose *inter alia* of carrying out the above recommendation.

*Next Meeting.*—It was agreed to hold the next meeting of the Committee at 2 o'clock on February 1st, at Manchester.

Mr. SUMNER: I beg to propose that the Report of the Committee be received and adopted.

Major-General THOMSON: I second that.

Mr. TRIGGER: I am not a member of that Committee, but I should like to say a word with regard to the suggestion that a Supplementary Charter should be applied for. I have not been on this Committee for a good many years, but I was a member when our last Charter was applied for, and I hope when any question of applying for a new Charter is brought forward it will not be rushed through in the way the last one was. So many things were left out that we wanted in, and a few things are in that we want out, that I venture to suggest that when you apply for a new Charter you will want a Committee to consider the matter who will sit here probably for months before you apply for the Charter in its final form. Let us have the matter better considered than it was last time.

The PRESIDENT: That has all been anticipated, Mr. Trigger.

Mr. TRIGGER: I am not a member of the Committee, but I noticed that you had passed a Resolution to apply for a supplementary Charter, and it looked to me possible that we were going to do so at once.

The PRESIDENT: It is only a recommendation to the Council.

Mr. TRIGGER: I want to protect the Council; I want to have an assurance of some sort that we will have a Committee formed—a new Charter Committee, which shall sit and consider every point, because I am sure we can improve very greatly upon our last Charter.

Mr. BANHAM: Do I understand from the Report that you propose having a special Examination? Is it a Fellowship Examination or a Public Health Examination?

The PRESIDENT: The whole thing is on the stocks. This was simply the result of the discussion, more or less informal, that we had this morning. What we are going to endeavour to frame is a Fellowship Examination and an examination for a special diploma in matters referring to what you would call Veterinary Public Health—a diploma for the members of the College equivalent, as far as we can make it, to the D.P.H. which is open to medical men. It will be in addition to the ordinary Fellowship Degree, a higher degree to the membership.

Mr. BANHAM: Additional—thank you, that is what I wanted to know.

The PRESIDENT: We have not yet formulated exactly our scheme, but we thought it well to inform the Council exactly how far we had gone. We intend to hold a supplementary meeting on the 1st of February in Manchester, when we will further consider the matter, and we shall probably have another Meeting before the next Meeting of Council, and give some sort of Report at the next meeting of Council on the exact position of affairs.

Mr. SUMNER: But we recognise that a supplemental Charter will be necessary.

The PRESIDENT: If the Council adopt this Report it gives us a chance to get the new Charter in form as it were—to know exactly what we require in the new Charter. It is absolutely necessary that we should have a new Charter in order to make certain alterations which are contemplated in the new Fellowship Diploma. As an instance, at the present time the member must be five years a member before he can proceed to his Fellowship; that is absolutely laid down in our Charter. That must be altered if we think of shortening the time.

The resolution for the adoption of the report of the Fellowship Degree Committee was then put and carried unanimously.

#### REPORT ON THE WALLEY MEMORIAL PRIZE AWARD.

The SECRETARY read the report of Mr. William Woods, Chairman of the Board of Examiners of the Walley Memorial Prize for 1912, which stated that ten pupils entered, five in London, three in Edinburgh, and two in Dublin, but only two actually sat for examination, namely, one in Edinburgh, and one in London. The Examiners' report was as follows:

Pathology.	Materia Medica.	Hygiene.	Total.
No. 2: 75½	81	63	219½
No. 10: 50½	50	36	136½

The prize, therefore, was gained by No. 2, namely, Mr. H. W. Dawes, Royal Veterinary College, London.

On the motion of Mr. Trigger, seconded by Maj.-Gen. Thomson, the report was adopted.

#### REPORT OF WILLIAMS MEMORIAL PRIZE.

The SECRETARY read the report of Messrs. Woodhouse and Wilkinson, Auditors, dated January 6th, 1913, on the Williams Memorial Prize.

List of students gaining 60 per cent. or more marks in the Final Examination:—

				Total.
London	July, 1912,	A. C. Holl	60 60	120
Dublin	" "	L. C. Maguire	64 60	124
"	" "	J. Quinlan	60 60	120
Liverpool	Dec. "	R. Isherwood	60 60	120
London	" "	S. L. Slocock	70 60	130

We certify that the above is a correct statement of the marks obtained by the candidates in the Final Examinations during 1912, who obtained 60 per cent. or more marks in the subjects of Veterinary Medicine and Surgery."

The PRESIDENT: The Council has heard the report of the auditors. Will you adopt that report?

Mr. SUMNER: I beg to move that we do, and that the prize be awarded to Mr. S. L. Slocock, Graduate of London College, December, 1912, marks 130. (Cheers).

The resolution was carried unanimously.

The PRESIDENT: I am sure that, on behalf of the Council, I may offer our sincere congratulations to his father, who is an honoured member of our Board, who may be sure that we quite appreciate the pride of the father's heart in knowing that this prize has been gained by his son. I am sure we offer our sincere congratulations to him. (Cheers).

Mr. SLOCOCK: I must rise to thank you, sir, for the congratulations. I feel that the congratulations are really due to the man who has gained the prize. I can assure you he is a lad who has shaped his own course in his college life, as I believe he will in the future. It is gratifying to me to know that the prize has been gained by a Christmas student, and the more so that it has been gained by the son of a veterinary surgeon. (Cheers).

#### REPORT ON THE FELLOWSHIP DEGREE EXAMINATIONS

The SECRETARY read the report of the Fellowship Examination held on Dec. 7th, 1912, which stated that three members entered, and the following two passed: R. G. Anderson and R. F. Stirling.

On the motion of Mr. McKinna, seconded by Maj.-Gen. Thomson, the report was received.

#### NOTICE OF MOTION.

Mr. GARNETT: I beg to give notice that, at the next meeting of Council, I will move the adoption of the new bye-laws which you have already passed to-day. That is in compliance with the Standing Orders. I refer to the new Bye-laws hanging up on the notice board, and I now give formal notice of motion that I propose at the next quarterly meeting of Council to move their adoption. I will ask Mr. Bullock to send a copy of them to each member of Council.

Dr. BRADLEY: Arising out of the Report of the Examination Committee, I have to give notice for the alteration of a bye-law—the First Schedule in the present Register, page 82. I give notice that at the next meeting this alteration will be proposed: "That the examination now reading 'Educational Institute of Scotland, Preliminary Medical Examination' be made to read 'Educational Institute of Scotland, Preliminary Examination,'" that is to say, delete the word "Medical."

Mr. MULVEY: Will you not add, "as in force in 1912."

Dr. BRADLEY: I purposely omitted that, because that would probably lead to a supposition that the standard was going to be diminished. That can be moved as an amendment, if you like, on the motion when it comes up for discussion, but for the purpose of giving notice of motion I simply move the alteration I have suggested.

Mr. MULVEY: Only it must be understood by the Examining body that we do not propose to allow them to institute any examination that they see fit, but that the standard is to be maintained in existence as it is now.

Dr. BRADLEY: I think it serves the purpose for to-day to comply with the constitution if I simply give notice that at the next meeting I will move the deletion of the word "medical." That will be open to discussion at the time.

Mr. GARNETT: Might I suggest, with your permission, sir, to Prof. Bradley that he substitutes for the motion that he has just now proposed a motion for an alteration in the new bye-laws, because then it will have priority of my motion. It will greatly facilitate matters if he accepts my suggestion. Being first on the list, I anticipate that the new bye-laws will be in force before his motion would be carried, and therefore if he will substitute a motion for the alteration of the new bye-laws as proposed, I think it would facilitate matters.

Dr. BRADLEY: Yes, I quite agree.

The PRESIDENT: It will be an alteration to a schedule in the new bye-laws.

Mr. GARNETT: It will simply be the deletion of the word "medical" in the new bye-laws.

Dr. BRADLEY: Yes, I propose to move my motion in that form.

#### OTHER BUSINESS.

Sir STEWART STOCKMAN: May I ask if this College received any notification of the Congress of Comparative Pathology which has been held recently in Paris?

The SECRETARY: No.

Sir STEWART STOCKMAN: May I ask you, personally, sir, if you received a notification?

The PRESIDENT: No.

Sir STEWART STOCKMAN: I raise the matter for this reason, that just a week before the Congress took place I received a note from a very junior member of the profession suggesting that if I wanted to have anything to do with I should immediately communicate with Prof. Sims Woodhead. I went along with yourself, sir, to Lyons, and there was a great deal of talk about no British representatives being there. I said that they had never communicated with us; they had never asked anyone to send a representative. I said so merely because I did not receive a request myself. I thought I would take the opportunity of raising this question at the Council to know what had become of it.

The PRESIDENT: I am very glad that you have raised this question.

Sir STEWART STOCKMAN: I think the wrong person got hold of the thing; that is my opinion.

The PRESIDENT: Apparently this College is altogether ignored by European Governments. I am not aware at any time of a direct communication being made to this College by any European Government, or by any European Veterinary Society. As regards the celebration of the 150th Anniversary of the Lyons School, when I knew the Celebration was going to be held I considered it my duty, as President of the Royal College of Veterinary Surgeons, to ask if it was their intention to invite us to be represented there, and I got an apologetic letter from Lyons saying that we had been overlooked. I would like this College to inform the Foreign Office that whenever there is a communication to the veterinary profession from other countries that it be forwarded to this College. I think it is probable that it may have got lost in the Foreign Office. I am not aware of any communication coming direct to the College, and I always thought it rather an anomaly. As far as I could learn in Lyons, they had no appreciation of what the Royal College of Veterinary Surgeons was. Of course on the Continent the Veterinary Colleges themselves as a rule grant Diplomas and so on; they do not recognise any body but themselves. I think it should go forth that the Royal College of Veterinary Surgeons is the supreme head of the veterinary profession in these countries, and that it is to the Royal College of Veterinary Surgeons that any communications should be ad-

dressed from foreign Governments and other places when they wish to communicate with the veterinary profession in these islands. It is a thing I cannot understand. I also heard the same thing about the Congress of Comparative Pathology in Paris. I heard there was some complaint that there was no representative present from the United Kingdom.

Sir STEWART STOCKMAN: I heard more. I heard that a medical man got up and apologised for us not sending any representatives, and he gave a reason which was quite an inadequate one, and to my mind an unauthorised reason, that the Schools were all sitting and nobody could get away. We do not all belong to the Schools, and many of us would go away for an important thing like that.

The PRESIDENT: The Schools were sitting when the Lyons Anniversary Celebration took place, and we made an effort to go there to represent the profession. I think that a representation might be sent to the Foreign Office, that any communication to the veterinary profession in these Islands should come to the Royal College of Veterinary Surgeons. I will propose that from the Chair if you wish.

Mr. SUMNER: That an intimation be sent to the Foreign Office to that effect.

The PRESIDENT: Yes.

Mr. ABSON: I second that.

The PRESIDENT: That if there is any intimation to the veterinary profession from foreign Governments—or from abroad is perhaps the proper expression to use—it should be sent from the Foreign Office to this College.

Mr. TRIGGER: Do not you think it would be done at the present time?

The PRESIDENT: It is not done.

Mr. ABSON: Have you reasons to believe that such correspondence has reached the Foreign Office?

The PRESIDENT: As far as I know it is through the Foreign Office that it should come.

Sir STEWART STOCKMAN: That I do not know. I could find out. I think perhaps it would be just as well and save time if we waited till the next meeting, and I will try and find out by that time.

Mr. MULVEY: You might say "by the proper authorities."

The PRESIDENT: Yes, we could substitute for "the Foreign Office" the words "the proper authorities."

After a further discussion in private,

The PRESIDENT said: We will ask Mr. Bullock to look into matters and give us some information on them at the next meeting. He will probably in the meantime be able to ascertain the proper channels through which these things should come, but we should insist emphatically that this is the place where they must be received and dealt with. (Agreed to).

The PRESIDENT: Gentlemen, that concludes the business of the meeting.

On the motion of Mr. Lawson, seconded by Major General Thomson, a hearty vote of thanks was accorded to the President for his conduct in the Chair, and the meeting terminated.

#### Motor Cars at Hunt Meets.

The following letter has been received from the Duke of Beaufort:—"I am reluctantly obliged to ask those who have been following my hounds in motor-cars to kindly refrain from doing so, as they have unwittingly interfered much with our sport, through heading foxes, and on one or two occasions with neighbouring packs, some of the hounds have been seriously injured. There is no objection to motor-cars coming to the meet, but I appeal to all sportsmen not to follow the hounds during the day in them."—*Horse and Hound*.

#### Successful Appeal on a Charge of Cruelty.

(Concluded from p. 430).

Mr. Trevor Lloyd then addressed the court for the appellant. He reminded the magistrates that the case was a very important one as it had attracted a great deal of notice. It was a very serious thing to charge a stationmaster with cruelty, and every one who had a spark of feeling for animals looked upon it as a serious matter. Here was a stationmaster charged with causing unnecessary suffering and with wanton or unreasonable conduct. It was alleged that the man was guilty of that through omitting to feed, water, and milk the cows. Such a charge he submitted had to be proved to the hilt, as it was a criminal matter, and in dealing with such a case the court had to consider whether the man had acted reasonably or unreasonably. In that connection they had to remember that they were dealing not with a farm servant or cowman but with a stationmaster, and one who was not used to cattle. Under the Diseases of Animals Act the Board of Agriculture made regulations, and at certain stations provision had to be made for watering animals. A list was published of those stations, and Chirk was not in the list. As a matter of fact during twelve months there had only been four lots of cattle at the station, and there was no provision there for dealing with animals. It was never suggested that the stationmaster had any intention of doing harm to the cattle, and the whole question was whether he did what was reasonable under the circumstances. As to the evidence for the prosecution he asked the court to hesitate before they believed the story of the men who had to do with the sending of the cattle. Whoever heard of a cattle dealer sending cows in milk to the country to be lent to a farmer for their keep and that at a time when cows were dear in Liverpool and milk scarce. All this took place without a price being fixed for the cows if Mr. Edwards bought them. The men did not know or would not say what price they were to get for the cattle, and he would also point out that Fleming had admitted that he had made two false statements to the company. The condition of the animals when seen by Mr. Platt greatly depended on their condition when they left Liverpool or Birkenhead, and he asked the court what sort of cow they could expect to get for £9 10s., when milch cows were selling in Liverpool from £20 to £26. As to the stationmaster detaining the cows until the carriage was paid he would remind the court that Edwards was a man whose credit had been stopped, whose cheques were returned. If there was cruelty at all was it not on the part of Edwards who could have had the cattle at once or as soon as his man returned had he cared to send the 16/-? But no, he waited until the next morning, sending for Mr. Smith in the meantime.

The Chairman intimated that the court was satisfied that the company had the right to refuse delivery until the carriage was paid.

Mr. Lloyd said it was clear from the evidence of Mr. Platt that the cows did not suffer through being out all night in the truck, and therefore he had only to deal with the condition of the animals and the attention they received. He contended that the garget was of old standing, and in all probability that accounted for their being sent from Liverpool, where the inspection of dairy cattle was very keen. He submitted that the stationmaster did all that one could reasonably expect, and that the whole case for the prosecution was exaggerated, particularly as to the walking home of the cattle if they were in the state alleged. He asked the court to grant the appeal.

Evidence was then given by Phillip Henry Brookes, William Henry Latham, William George Turner, Robert Thomas Jones, employees of the G.W.R. at Chirk, who

swore that on the instructions of the stationmaster they removed the partition in the truck so as to give the animals more room. They, in the evening and the next morning went to the top of the railway embankment next to a meadow and pulled armfuls of grass and gave it to the cows loose and in buckets. Water was twice given the cows, which were milked evening and morning. These witnesses who said they had some knowledge of cows through having been at farms, said they did milk the cows. One said he started to milk a cow using a bucket, but the animal upset it. He then milked her on the floor, and was sure he drew milk. Another of these witnesses said he milked on the floor and into a can, taking the milk home. He admitted that he did not say that at the police court, and Mr. Lloyd said perhaps the man did not like to tell the world he had had some cheap milk from cattle left on the railway.

In cross-examination the witnesses adhered to their statement and said that the milk would not easily show when mixed with the manure. They denied that they pulled grass from the side of the line, where it was kept short by the platelayers, but that it was from the top of the bank and equal to the grass in the meadow adjoining.

Tom James Owens, the appellant, said he waited until he received the letter from Mr. Edwards as he expected he would have removed the cattle that night. He gave instructions for the animals to be fed, watered and milked. He did all he considered was reasonable.

In cross-examination the witness said he had had experience with cattle on the railway but not elsewhere. He knew of the Hand Hotel, but did not know they had stalls for cattle. He did not take steps to remove them there as he expected Mr. Owens to fetch them.

Mr. Lloyd submitted that if it was too dark for Mr. Edwards to untruck the cattle at 8 o'clock it was equally too dark for the stationmaster to take them to the Hand Hotel.

Reference was made to the almanac, and it was intimated that it was sunset about 6.54, so that lighting up time would be nearly 8 o'clock.

The witness further said he attended to the cows to the best of his ability, but he did not give them hay. He certainly cared whether the cattle suffered or not, as he gave them the care and attention he thought they required.

William Hunting, F.R.C.V.S., London, Examiner in Surgery to the Royal College of Veterinary Surgeons, said he had been practising for 46 years, and he had gone through the shorthand notes of the evidence at the police court, and had also heard the evidence that day. He did not think that there had been unnecessary suffering caused to the animals. That was assuming the evidence given was correct. The rumen or first stomach was a big receptacle for food and would contain sufficient food for many days. He agreed with the veterinary surgeon for the prosecution that the cattle would take no harm in being left in the truck over night in August. He considered that the animal referred to had the cause of the garget in operation before it left Liverpool, and it was a disease that developed very rapidly. The time of incubation would be about 24 hours. Whether it would be right to drive the animal home when it was showing lameness all depended on the extent of the injury and the amount of lameness. He considered generally that the stationmaster had acted reasonably.

In cross-examination by Mr. Jones the witness said he agreed that a member of the Royal College of Veterinary Surgeons on the spot would be better able to judge of the condition of the animal than anyone else, and he did not contradict him from theory. He said from what he had heard that what was done by the stationmaster was sufficient. Milking cows were usually well fed, but it all depended on the owners. As to cows from a Liver-

pool dairy being well fed he could only judge from the evidence of the Liverpool dairyman called, and he did not think in this case they had been well fed. He considered that they were poor, cast animals for which there was no further use in a Liverpool dairy. It was necessary he agreed to feed milking cows two or three times a day. If what the witnesses for the prosecution said was correct as to the feeding, the grass the porters gave the cows would have been sufficient. It was quite sufficient if they had been properly fed 24 hours previously. He could not agree that it was absurd to suggest that grass from the top of a railway embankment was an adequate substitute for proper food. He agreed that he was not in the same position to speak of the condition of the cows as a veterinary surgeon who saw them, but he could judge if the facts as stated were correct. He was not prepared to swear that the cows were not hollow, but they had no reliable evidence as to the condition of the cows before they left Liverpool, which was the foundation of the case.

In reply to Mr. Lloyd, the witness said that a cow which cost but £9 10s. could not be up to much, and it showed that it was a waster. As to the question whether garget of the udder could start and reach the stage suggested during transit he said that experiments showed that inflammation could not be produced in the udder under 24 hours unless the udder was bruised.

Asked by the Chairman whether what the cows had would be sufficient to sustain them if they had been used to two or three meals a day, the witness said he preferred three meals a day himself, but he would take no harm if he only had one. It would not amount to cruelty to himself if he only got one meal in one day.

Robert J. Hickes, F.R.C.V.S., who said he was County Veterinary Inspector to the East Riding of York, local veterinary to the Board of Agriculture and Fisheries, and examiner in surgery to the Royal College of Veterinary Surgeons, was next called, and said he was connected with a large breeding and grazing farm, and had been occupied in that way for many years. He had also read the shorthand notes of the police court proceedings and had heard the evidence that day. He did not consider that there had been unnecessary suffering caused. He agreed that there could be no harm done by the cattle being in a truck of the size. There would certainly be no difficulty in milking them as they were old and docile cows. Judging by the price mentioned he came to the conclusion that the cows were old and unfit. They would in all probability be hollow. Garget of the udder would take at least 24 hours as there was a period of incubation.

In cross-examination, the witness said he did not contradict Mr. Platt as to what he thought of the cows, as he did not see them. If the regular meals of the cows were scratched for one day he did not think they would suffer, there might be inconvenience.

Mr. Lloyd suggested that there were individuals who might be the better for occasionally going without a meal.

In further cross-examination the witness said 24 hours was not a long fast. He had often advised clients to fast cows. There was no analogy between cows and human beings. Grass such as was given the cows would keep them from suffering. People who went without food for 24 hours could not be said to be starving although they might be inconvenienced, and there was a difference between suffering pain and inconvenience. He did not think the cows suffered even to a small degree. He could not say how long they could go on a diet of grass as he had had no experience of hungry cows, but he had known some to fast for many days. He still said there was adequate attention given the cows. A great deal depended on the night and time of year. He did not agree that grass plucked by the hand

was necessarily short as he had plucked it two feet in length. He did not say that so long as there was something in the rumen cows did not require food. The rumen was the storehouse. If Mr. Platt said the cows were suffering from the treatment they received he was not prepared to say he was not right. It was a matter of opinion.

By Mr. Lloyd: What he did say was that the animals had sufficient food.

Stafford Jackson, M.R.C.V.S., a member of the Board of Management of the Veterinary School of the Liverpool University, Veterinary Surgeon to the Liverpool Cowkeepers' Association (which has a membership of between six and seven thousand) was then called and said he was continually advising railway companies as to delays in the transit of animals. Assuming the evidence given at the police court and in that court was correct he considered that the treatment of the animals under the circumstances was reasonable. As adviser to the railway companies he advised milking and watering of animals. He did not think that these animals under the circumstances required food at all at Chirk station. Well-fed cows had an enormous amount of food in the first stomach which contained from 40 to 60 gallons of food. That statement appeared in every text book on the subject. The total weight of the rumen and three small stomachs was about 250 lbs. He had taken the weight of one last Tuesday and it weighed 250 lbs. It was an ordinary Liverpool dairy cow that had gone off milk and she was beef. He did not know it was going to the abattoir, but he was there at the time she was killed.

By Mr. Lloyd: It was the rule for butchers to keep a ruminant a considerable time before killing or selling. He had known many cattle drovers on the L.N.W.R. who kept cattle before selling for 25 to 30 hours without food and they suffered no inconvenience. One could see them standing in the pens or in the slaughterhouses suffering no inconvenience and chewing the cud as they were waiting to be killed. Cattle did not chew the cud if they were suffering. He had heard that these animals at Chirk had had water and that was the chief thing. He often saw a truck of animals hung up for hours, and the porters gave them water which was all they required. As to the price of cattle the best milch cows from the district north of Preston and south of Carlisle fetched last Tuesday £25 to £30 each. The stationmaster in his opinion as an expert did all that was reasonably necessary for the cattle. As to the garget he agreed with the evidence of Mr. Platt and the other members that there must be a period of incubation. He considered that it must have been in the animal before it left Liverpool, and that was probably the reason why it was sent away, as there was a close inspection of the Liverpool shippers. Anything wrong with the udder of a cow must be reported immediately under the bye-laws. Rather than report a case he believed men sent the cows away. From the price quoted he considered that the cows were turned out of Liverpool, being no use as milkers or as butchers' meat either. At the time milk was scarce in Liverpool in consequence of the foot-and-mouth disease restrictions. Taking the whole case he did not consider there was unnecessary suffering.

In cross-examination by Mr. Jones, the witness said he did not agree that there was always plenty of milk in the country for Liverpool, and being connected with the Cowkeepers' Association he knew there was a scarcity. He did not agree that cows would suffer if kept without food for 24 hours, and he considered watering was the chief thing. It depended how long the cattle were on the road what they required. Drovers did not think of giving water under 24 hours.

Mr. Lloyd pointed out that 24 hours was the period

laid down by the Board of Agriculture. That was the maximum period.

In further cross-examination the witness said animals might be caused suffering if they went for more than 24 hours, but it would all depend on circumstances. He did not consider there was much milk in these animals judging from the price. As to whether it was ten weeks after the cow calved all he could say was that she would never have been sent from Liverpool at the time if she worth anything. He had heard that Mr. Fleming had room for 10 cows, and he also knew the place and the man. He was sure he would not have parted with the cow if she had been giving plenty of milk. He repeated that he did not consider good cows would require nourishment in 20 or 30 hours after being well fed. He assumed the cows were no good by the price. He did not say anything about Mr. Platt's statement that the cows were famished he judged of their condition when they left Liverpool by the price, knowing the cattle of Liverpool. There was always a quantity of food in the rumen, and it depended on the length of time between the feeding and the kind of feeding as to when they would require food. It also depended whether they were for milk or beef.

By Mr. Lloyd: He said that the cattle must have been bad from the start.

In reply to the Chairman the witness said that if the cows had been good ones and had been properly fed he would not have fed them at Chirk during the period they were in the station-master's charge. He would have fed them the evening of the day after they left. Butchers only fed their cattle on rough stuff if they were keeping them when the market was against them; practically he would allow 30 hours for the cattle, as a ruminant was quite different to any other animal.

Counsel having summed up the case, the magistrates retired for a short time, and on returning to court the Chairman said: We have come to the conclusion this appeal must be allowed. No order as to costs.

### Animal Slaughter

The calm assumption of profession publicists and philanthropists that they know more about animal slaughtering than those engaged in it is so ingenuous that probably many innocent people who read halfpenny morning papers believe them. All that these good people are telling us now was told years ago by "humanitarians," so-called, but really those who had a natural antipathy to meat and meat purveyors. They also assert with a fine air of candour and benevolence that they desire merely to point out to them that their methods are obsolete, cruel, and unscientific, and that they can supply certain mechanical instruments at prices ranging from— Just where the philanthropy of these zealots ends and business begins it is sometimes difficult to distinguish. Their own demonstrations have shown that these new instruments are no more infallible than the old pole-axe, and that expertness in their use is as much a desideratum as it is to the ordinary slaughterman. We assert again that the stories of incalculable cruelty and carelessness so glibly repeated are gross exaggerations. Let us have some actual proof of them. Surely during the past two years the lynx-eyed officials and the great number of ladies and gentlemen who assist them in slaughterhouse inspection have particulars of specific cases before them. Ten thousand probabilities do not make one fact. Sentimental platitudes or the brilliant essays of professional controversialists cannot wholly cover up gross inaccuracies and wholesale generalities.

## A NEW VETERINARY ASSOCIATION.

At a Meeting of Veterinary Surgeons held at the King's Head Hotel, Sheffield, on Tuesday, January 14th, 1913, it was resolved that a Veterinary Association be formed for Sheffield and District. The following members of the profession were present:—

Messrs. Brown, Worksop; Collinson, Anston; Fletcher, Lewis Lloyd, Murgatroyd, Sampson and Yates, Sheffield; Furness, Alfretton; Green, Rotherham; Hudson, Retford; Johnson, Beighton; Rawlins and Somerset, Chesterfield; and Smith, Barnsley.

Mr. J. S. Lloyd, Chief Veterinary Inspector, Sheffield, called the Meeting, and was voted to the Chair. In his opening remarks the Chairman mentioned that he had received apologies for absence from Messrs. Abson and Burndred, Sheffield (who had been called out of town), Levie, Derby; Morrison, Bakewell; Norwood, Conisboro'; and Wheatcroft, Wentworth, all of whom were favourable to a Veterinary Association being formed, and wishing the venture success. The Chairman also stated that in reply to his circular letter ventilating the subject he had received favourable replies from several other Veterinary Surgeons who would be willing to join should an Association be formed. The matter was thoroughly discussed by Messrs. Johnson, Somerset, Fletcher, Brown, Sampson, Yates, and others, and finally a Resolution as above stated was unanimously carried.

Amongst the subjects mentioned by the various speakers as demanding consideration by such an Association, and indeed by the profession generally were the following:—

Inspection fees paid by County Councils.

The inroad into veterinary practice by motor traffic and the provision of some other compensatory branches of veterinary work.

Measures for dealing with quackery and quack medicine vendors.

The position of whole-time veterinary officers and the formation of Veterinary Departments as against the holding of subordinate positions under Medical Officers of Health or Chief Sanitary Inspectors.

The provision of papers for reading and discussion by friends and members of the Association, especial prominence being given to the greater value of addresses and demonstrations on subjects of interest and importance, or even of impromptu discussions on current veterinary topics, puzzling clinical cases, the value of specific remedies, polyvalent and other sera, etc.

An Organising Committee was formed as follows:—The Veterinary Practitioners residing in Sheffield, and Messrs. Collinson, Green, Hudson, Johnson, Smith and Somerset.

There was a general feeling that every gentleman present would endeavour to get other veterinary surgeons in his district to join the Association, special efforts to be made to obtain members from Derbyshire and Nottinghamshire, where there are a considerable number of veterinary surgeons who at present, it is understood, are not members of any Veterinary Society. The want of such an Association has long been felt by many of the gentlemen present, and they anticipate that much good will result from its formation, as every effort will be made to make the Association of educational, social, and ethical value to its members.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended Jan. 11	16		21				5	28	79	212	11	55	723
Corresponding week in	1912	23		26			2	13	162	490	23	54	551
	1911	22		23			4	19			41	35	447
	1910		28				7	17			31	19	192
Total for 2 weeks, 1912	27		35				9	43	160	401	26	73	1353
Corresponding period in	1912	42		50			8	24	382	1094	43	103	944
	1911	32		33			9	27			68	66	763
	1910		64				12	29			81	51	282

† Counties affected, animals attacked: Derby 2, Essex 4, Lancaster 1, London 15.

Board of Agriculture and Fisheries, Jan. 14, 1913.

IRELAND. Week ended Jan. 11	...							Outbreaks	10	9	42
	...							12			
Corresponding Week in	1912	...	...	...	...	...	...	...	19	2	83
	1911	...	...	...	...	...	...	1	24	6	99
	1910	...	1	1	...	...	...	4	18	1	1
Total for 2 weeks, 1912	...	...	...	...	...	...	...	21	31	14	77
Corresponding period in	1912	...	1	1	...	...	...	3	4	40	100
	1911	...	...	...	...	...	...	2	32	10	184
	1910	...	2	2	...	...	...	8	45	1	1

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Jan. 13, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



### Immunity from Tuberculosis.

Prof. Metchnikoff, of the Pasteur Institute of Paris, delivered the Lady Priestley Memorial Lecture to members of the National Health Society, in the rooms of the Royal Society of Medicine. His subject was "The War against Tubercle." Sir James Crichton-Browne presided.

Prof. Metchnikoff, who spoke in French, said that tubercle was a very common disease, but it did not kill rapidly. The eater-cells, or phagocytes, of the animal body waged a constant war upon the bacilli of tubercle. The "giant cells," so numerous in the tubercles of disease, were aggregated or fused phagocytes which were fighting, destroying, and arresting the tubercle bacilli. They were the effective and often triumphant organs of defence of the body against the invading *Bacillus tuberculosis*. Lately it had been shown that evidence of tubercular disease, healed and past, was nearly universal in all adults in our town populations who died from other causes than tubercle. Pirquet's tuberculin test had shown that 90 per cent. of the adult population of European towns had incurred infection by Koch's bacillus, yet only 15 per cent. died of it—a seventh of all deaths. The others recovered, and often had not been aware of illness of a tubercular nature. He had found that death from tubercle was rare among the Kalmuk Tartars, who lived far from towns; but young Kalmuks who went into Russian towns to be educated died from tubercle in far greater proportion than did the youths of the town populations. The explanation was that the town population was almost universally "tubercularized," and that attacks of less virulent tubercular disease, from which there was recovery, conferred on them immunity against deadly lung tubercle. No real remedy or sure treatment for tubercle had yet been found. Unconscious inoculation by mild or benign "strains" of the tubercle bacillus were known to occur naturally and to lead to immunity. The present diminution in the death-rate from tubercle in London, Hamburg, and Copenhagen was probably due to such unconscious inoculation. In 12 years it had fallen from 24 deaths to 13 per year per 10,000 of the population. Natural infection by mild or modified strains of a disease-producing microbe was a factor of great importance in the warfare against each kind of infectious disease. It was established that individuals were often thus rendered immune from typhoid fever. The disappearance of leprosy was almost certainly due to the same cause. It was certain that there were abundant sources of the infection of human beings by such mild and "immunizing" or protecting strains of the *Bacillus tuberculosis*. Whether these "races" or "strains" had acquired their comparative mildness in the human body or in other animals, or by exposure to light and other physical conditions, remained to be discovered. The progress in the warfare against tubercle accomplished up to the present justified the hope that in the not far distant future the great animal *Homo sapiens* would triumph over the microscopic plant *Bacillus tuberculosis*.—*The Times*.

### "Veterinary Antiseptic Bill."

The Listowel Board of Guardians passed a resolution requesting the Irish Parliamentary Party to strongly protest against the passing into law of the Veterinary Antiseptic Bill, which, they said, was solely in the interests of the veterinary profession, and extremely injurious to the agricultural community, especially to small farmers, whom it would prevent performing the simplest operation on their farm animals.—*The Irish Times*.

[Jove nods!]

### The New Cattle Killer.

The killer to which the Council of Justice to Animals have awarded their £100 prize consists of a cylinder or air-chamber, into which air is pumped till it reaches a pressure of 100lb. to the square inch. The pressure is released by pulling a trigger, and a bolt shaped like the top of a pole-axe is driven into the head of the animal. The same air-suction withdraws the bolt, and a dozen rounds or more may be fired without re-charging, the pump being similar in structure to that used for motor tyres. It is claimed that cattle killed with this method drop instantaneously and utter no sound. Dr. Charles Reinhardt, who was present at a recent demonstration, says that the animals could have had no consciousness of pain, as an immediate examination of the eye showed the corneal reflex to be completely absent. Within twenty minutes of the administration of the fatal stroke the carcasses were dressed and ready for the butcher's shop. Mr. W. Gordon Barnes, the Superintendent of the Islington Abattoir, also stated that beyond doubt the animals had been slain without the least sensation of pain, and of the new killer he expressed the opinion that it was the best and most effective he had seen alike from the humanitarian point of view and the absence of any circumstances which could affect the quality of the meat. Another point which is claimed for it is that it is inexpensive, being much less costly than the other killers, and easily manipulated. The Council are prepared to supply it to butchers on favourable terms subject to a royalty to be paid to the inventor. The bullet, if such it may be called, has been found to penetrate bone without producing any splinter, and it will enter a solid deal board to a depth of an inch-and-a-quarter.—*M. T. J.*

### Present Position of the Veterinary Profession.

In view of statements frequently made in the present age of motor traction regarding the position of veterinary surgeons, whose professional opportunities are said to have been disadvantageously affected by the success of the motor-car, a representative of the *Morning Post* has made inquiries, in the course of which he obtained from one of the leading veterinary professors in Great Britain a definite statement regarding existing conditions in the profession. This authority has the advantage of being also a distinguished graduate in medical and physical science. According to the Professor's statement, it is altogether a misconception that the advent of motor traction has seriously affected either the number of candidates for the veterinary profession or the opportunities of actual practitioners. The last five years, during which motor traction has come into general use, may, he said, be taken as having provided the period of crucial test, and in that period, as the annual register of veterinary surgeons will show, there have not been fewer practitioners than there were six years ago. It is admitted that the profession has not added to its numbers, but it is also a fact that before the advent of the motor-car there had been an excess in the number of surgeons over the requirements of the Kingdom. A result of the present condition is that the veterinary expert of to-day is making greater profits than was the case ten or twenty years ago. Moreover, said the Professor, the business offers with the present equalisation of supply and demand far better opportunities for the young surgeon than was ever the case before, and in his opinion there are few professions in which the rewards prove, on the round average, so attractive as that of veterinary science. Although it is admitted that the advent and enormous success of motor traction have frightened away a number of possible candidates—this fact being indicated by a decrease in



the number of students at the Royal College of Veterinary Science—the surest test that there is no decrease in the demand for veterinary surgeons is shown by the number of sons of veterinary doctors who are now attending lectures at the College. These number 50 per cent. of the total of students, namely one hundred and fifty.

"If veterinary surgeons lived by horses alone," said the Professor, "then the motor-car probably would have put us out of business; but we do not, and the conditions of the agricultural world, and the great increase in farming stock of all kinds, have within recent years favoured us. We have been also favoured by the great increase in the number of dog-licences as well as by the greater number of horses, ponies, and coursing-dogs now in use for sport throughout the kingdom, while there are more hunting men and hunting women in the country than ever, although possibly the sport has become more democratic. In the larger cities, undoubtedly, the number of veterinary surgeons has fallen off since the disappearance of the cab horse and the advent of the engine-bus."

Questioned as to the advance in veterinary science, the same authority stated that it had kept pace with the advance in medical science, and had progressed step by step with it. All advance in human medicine, he said, has affected the progress of veterinary science, and the discoveries of men like Lister, Pasteur, and Koch have not influenced the work of the veterinary expert less than that of the medical man.

#### PARLIAMENTARY.

##### IMPORTATION OF CANADIAN CATTLE.

In the House of Commons on Tuesday, Jan. 14, Capt. CAMPBELL (Ayrshire, N., Opp.) asked the President of the Board of Agriculture whether at an early date he contemplated taking steps to remove the embargo against Canadian cattle; and whether he would state what disease or diseases had occurred in Canada during the last two years which rendered such embargo justifiable.

Mr. RUNCIMAN: There is nothing to prevent the importation of Canadian cattle into Great Britain at the present time, but under the provisions of the Diseases of Animals Acts they must be slaughtered at the port of landing. The Government do not contemplate legislation on the subject. According to the information furnished by the Minister of Agriculture for the Dominion of Canada, the following diseases have occurred during the years 1911 and 1912:—Glanders, dourine, or *maladie du coit* mange of horses and cattle, sheep scab, hog cholera, rabies, and anthrax. Tuberculosis is general, and redwater prevails to some extent in British Columbia.

Capt. CAMPBELL asked whether the existence of disease justified the restrictions on the importation of Canadian cattle.

Mr. RUNCIMAN said the hon. and gallant gentleman was under a misapprehension; the restrictions were not imposed by the Board of Agriculture, but by the provisions of the Act.

Capt. MURRAY asked the right hon. gentleman to consider the desirability of providing on an island on the west coast of Scotland a permanent quarantine station for Canadian cattle.

Mr. WATT (Glasgow College, Min.)—Why is not Free Trade in this respect adopted?

##### DETENTION OF IRISH CATTLE.

Mr. FIELD (Dublin, St. Patrick's, Nat.) asked whether in view of the serious complaints made by many persons on both sides of the Channel engaged in the live

stock industry, more especially regarding store cattle and pigs, and of the fact that Ireland was now practically free from disease, the right hon. gentleman would relax and modify the existing Order so as to permit greater freedom of movement for the purposes of grazing and slaughter and enabling quicker sale and transit.

Mr. RUNCIMAN: I understand that the complaints to which the hon. member refers are directed against the provision in the Order now in operation requiring that animals imported from Ireland shall be moved, after detention for 12 hours at the landing place, direct to their final destinations, where they must be kept under supervision for a further period of 21 days. I recognise that this requirement necessarily causes inconvenience, but it is a purely temporary precaution, which I hope to be able to dispense with at an early date.

In answer to further questions, Mr. Runciman said that if nothing untoward happened he might be able to get rid of the 21 days' detention Order in about a fortnight.

#### REVIEW.

MERCK'S ANNUAL REPORT OF RECENT ADVANCES IN PHARMACEUTICAL CHEMISTRY AND THERAPEUTICS. Vol. xxv. 1911. (E. Merck, Darmstadt, 1912. London Office, 16, Jewry Street, E.C.).

Merck's Annual Report first appeared in 1887 as a booklet of 15 pages, printed in German alone. It has since expanded year by year, and the issue now before us amounts to 457 pages (exclusive of copious indices and bibliographies), and appears separately in the German, English, French, and Russian languages, with a total annual edition of 60,000 copies. It has also become a publication of recognised authority in medicine, the annual reappearances of which are cordially welcomed by therapeutists throughout the world. Its avowed aim is "to present a brief yet strictly impartial review of the therapeutic acquisitions of each year quite independent of the interests of any manufacturer"; and every page of the present issue affords proof that this object has been attained. Perhaps the most valuable features are the special articles upon the glycerophosphates (pages 1—30) and upon the digitalis glucosides and allied drugs (pages 31—129), both of which are subjects that have figured a great deal in recent pharmaceutical and therapeutical research. This section alone, which records the latest advances concerning them, makes the volume more than worth its price; and as over 300 pages more deal similarly with a host of other medicinal drugs, reagents, and stains, it would be difficult to appraise the value of the whole. The book truly deserves the much abused title of "a mine of information"; and, as it can be obtained through the booksellers at the modest price of 1/6, it should be upon every practitioner's shelf.

#### Election of Council, 1913

The following members have already been nominated for election, so that their names will be included in the foreign voting papers, which, according to the official Calendar, will be issued on Feb. 5th:—

Mr. J. H. Carter	Mr. T. S. Price
J. McL. McCall	Prof. E. S. Shave
J. McKinna	Mr. W. Shipley
W. J. Mulvey	Mr. S. H. Sloccock
W. Packman	

#### DONATION TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following donation to the College funds for 1913 from:

Mr. P. G. Bond, Plymouth £1 1 0

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Jan. 9.

## TERRITORIAL FORCE. ARMY VETERINARY CORPS.

The appointment to a Majority of E. M. Perry (late Major 2nd Home Counties Brigade, R.F.A.) which was announced in *The Gazette* of August 16th, 1912, is cancelled.

E. M. Perry (late Major 2nd Home Counties Brigade R.F.A.) to be Capt. with precedence as from July 5, 1905. Dated June 5, 1912.

The undermentioned officers embarked in Transport "Rewa" on 15th January, for a tour of service in India: Capt. A. J. Thompson, Lieuts. E. McK. Nicholl, and W. St. J. F. McCartney.

Mr. ALEXANDER POTTIE, M.R.C.V.S., the younger, is to be the veterinary inspector at the Highland. Mr. R. C. Young did this. Knockdon meant to propose Mr. W. F. Houston, but did not wish to divide the meeting.—*Scottish Farmer*.

In view of the failure of the Foreign Cattle Market at Deptford, the Cattle Markets Committee of the Corporation have submitted to the Board of Agriculture suggestions for making a portion of it a depot for the reception of fat and store cattle from Ireland. At present the Corporation are annually involved in heavy financial loss over the market, and the distress at Deptford among the labouring classes who used to live by the market is acute.

## OBITUARY

W. J. COFFEY, M.R.C.V.S., Newbridge, Kildare.  
Graduated, Edin: Dec. 1900.

Widespread and most profound regret was expressed on Monday last (Dec. 30) when the death of Mr. William J. Coffey, M.R.C.V.S. (second son of the late Mr. James Coffey, Faircross, Newbridge), became known. The sad event took place at his residence in Poplar Square, Naas, after a week's illness. He was in Dublin on Friday and Saturday and was about on his professional duties on Sunday and Monday. On Tuesday (Christmas Eve) he was confined to his bed, and the following day he called in Dr. Murphy, who at once apprised his relations of his serious condition; and double pneumonia rapidly developed.

Mr. Coffey, by his quiet and unobtrusive manner, had made for himself hosts of friends. He was a pupil of the late Mr. T. D. Lambert, one of the kings of the veterinary profession. For some years he was attached to the Army Veterinary Corps, but at the termination of the South African War he took up private practice in Newbridge. On the decease of Mr. Black, v.s., he was appointed veterinary inspector to the County Council and the Naas Rural District Council and was carrying on a very lucrative practice at his all too untimely death. Many of his friends believe that the arduous and increasing duties during the foot-and-mouth restrictions in his district wore down his constitution so that he was not able to withstand the ravages of disease.

Mr. Coffey, coming as he did from a good old sporting Kildare stock, was a keen sportsman in all its branches and was a fine exponent of cricket and other games—only taking to golf a short time ago, his name had already found its way to the top of competitions.

To his bereaved mother, brothers, sisters and other relatives we tender our most sincere sympathy.

The remains were removed on Tuesday evening from Naas to St. Conleith's Church, and were followed by a large cortege. The funeral took place on Wednesday to the family burial ground at Connell Abbey. Office and High Mass was celebrated in St. Conleith's Church on Thursday morning.

The chief mourners were: Mr. Robert Coffey, D.C., Mr. Richard Coffey (brothers); Mr. William Gannon, Mr. Richard F. Gannon, J.P.; Mr. Robert Gannon, D.C.; Mr. John Gannon. Mr. Patrick Coffey, D.C., and Mr. James Coffey (cousins), Mr. R. Murphy (nephew), Mr. William Cumiskey, Balbriggan. In a long list of names of those present were M.R.C.V.S.: Mr. W. T. Browne, Mr. Holland, Athy; Mr. G. B. Langran, Mr. T. H. Griffin, and Mr. E. R. Nicholls.—*The Kildare Observer*.

JAMES S. SHIVAS, M.R.C.V.S., Invergordon, Ross-shire.  
1875. Glas: July, 1880.

Mr. Shivas died on Jan. 8th, from pleuro-pneumonia. Aged 54 years.

ALBERT BATT, M.R.C.V.S., West Town, Bristol.  
Lond: Dec., 1866.

Much regret is felt in the district of Backwell, in the Nailsea area of Bristol, at the loss of one of its oldest and most respected inhabitants in Mr. Albert Batt, whose death took place on Sunday last, 12th inst., from dropsy, at the age of 70. Mr. Batt was well known throughout the whole of North Somerset as a skilful practitioner. He had an extensive practice for nearly forty years, which he resigned some eight years ago through failing health. During the last few years he had resided at Nailsea.

Mr. Batt interested himself in many public institutions. He was hon. secretary of the North Somerset Agricultural Society for 20 years, and acted as judge at the shows for 12 years. For many years he was a guardian of the poor for the Long Ashton district of Bedminster. He was for years a Freemason, a member of the "Yatton Lodge of Agriculture."

He leaves a widow, three sons, and two daughters.

VETERINARY INSPECTION—  
SWINE FEVER ORDER.

Sir,

Now that Sir Sydney Olivier has been appointed as head of the Board of Agriculture, will it not be possible to get back as of old, that each veterinary inspector in the Petty Sessional Division of the County he lives in, be also veterinary inspector under the Swine Fever Order.

I am now, and have been veterinary inspector for this Division of Denbighshire for more than thirty years, but for the last seven years the inspection under this Order has been taken from me and is in the hands of one or two inspectors for the whole County with a retaining fee of £12 12s. Now, sir, I am not the only one that feels the pinch of this loss. Now that the motor car and other motor vehicles have come to stay it makes it rather hard for the county practitioner. When up in Edinburgh some two years ago, I was talking on this subject to some of the Professors at Dick's College, and they said it was most unjust; and the same thing was felt all through Scotland. There is no doubt the country practitioner feels it more than the town one. I do not by any means find fault with those that hold the appointment. I daresay I would be one of the first to accept the appointment when it was made to them—but that is apart of the question. I think the profession as a whole should petition the Board, and get things put on equitable basis.—Yours faithfully,

T. J. SIMPSON, M.R.C.V.S.

Fulbrooke, Ruthin. Jan. 9.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1281.

JANUARY 25, 1913.

Vol. XXV.

## THE "MILK AND DAIRIES BILL."

What are termed the main objects of this Bill are set forth on its front page under seven heads, but a perusal of the Bill makes it fairly clear that its real object is the elimination of tubercle infection from the milk supply, and gives the impression that the Local Government Board has taken the opportunity offered in legislating for this to include in the same Bill some other necessary alterations in dairy regulations, the important power of making orders, and the unification of the various existing local acts in one general act. The statement that the Board of Agriculture proposes to issue an order for dealing with tuberculosis in cows and providing compensation for the slaughtered is of great interest, as this order, when in operation, must practically accomplish the chief work this Bill sets out to do. One cannot be very far wrong in assuming that it is the intention of the Government that the Local Government Board Milk and Dairies Bill and the Board of Agriculture Tuberculosis Order shall be complementary.

The recognition of this by the profession, and that the compulsory employment of veterinary surgeons under both measures must bring grist to the veterinary mill, would appear to have stifled legitimate criticism of the Bill, as was exemplified by the attitude of the Council of the Royal College of Veterinary Surgeons at their meeting last week. But notwithstanding the inaction of our Council there are several points in the Bill necessitating amendment; and one of these is of such vital importance to many members of the profession and to efficient dairy inspection that notice of it ought to be taken. Indeed the Bill as it stands would largely suppress the veterinary dairy inspector.

At present many of the most progressive sanitary authorities with local dairy powers employ, at the suggestion of or with the approval of the Medical Officer of Health, Veterinary Dairy Inspectors of Cows and Cowsheds. Under this bill there is no provision or power for continuing this enlightened and desirable procedure, far less for extending it. The bill neither recognises such an official as a Veterinary Dairy Inspector, nor gives the sanitary authority of the M.O.H. power to recognise or appoint one, except for the inspection of cows for contagious diseases in company with the M.O.H. Clause 2 which deals with dairy inspection reads as follows:—

"The Medical Officer of Health for any sanitary district shall have power at all reasonable hours to enter any dairy situate within the district and inspect the dairy and the persons employed therein, and if accompanied by a veterinary in-

spector or some properly qualified veterinary surgeon to inspect the cows therein."

In the whole bill there is no provision for any other person than the M.O.H. inspecting any dairy, and he is given no power to delegate his authority to another. Clearly, therefore, if this bill is passed in its present form none of the Public Health Veterinary Dairy Inspectors now employed in this country will have any legal right to inspect any cowshed.

The inspection provided for under this Bill is worse than absurd. It pretends to provide for dairy inspection but makes no real provision for its accomplishments. It would be simply a practical impossibility for any M. O. H. of any large sanitary district with many cowsheds within its area to inspect these cowsheds adequately as well as to perform his many other onerous duties. One is tempted to ask how the authors of this Bill hope to secure the necessary dairy inspection other than that of the suppression of tuberculosis which, when detected, the sanitary authority or the M. O. H. will have to report to the Veterinary Inspector under the Board of Agriculture Order, and which could largely be done as effectually under the Board of Agriculture Order as under the Milk Bill. No doubt the Bill does provide for the general registration of dairies as well as of dairymen, but after registration there is no obligation under the Bill to continue inspection. And in many districts the cows and cowsheds may remain, and in all probability will remain, as at present, without any real inspection until a suspicion of the milk induces the M. O. H. to visit the premises, either with or without a veterinary surgeon. This is a sorry substitute for the systematic veterinary dairy inspection now in force under local powers in many districts, but which powers will be abrogated under this Bill.

## THE REPORT OF THE DEPARTMENTAL COMMITTEE ON THE PUBLIC VETERINARY SERVICES.

On another page we reprint a Press abstract which gives an excellent summary of the report and recommendations of this important committee, and which deserves careful reading. The Committee's work is not likely to influence veterinary education very greatly or directly, so far as the training of men for private practice is concerned. But it will probably inaugurate a new era in the veterinary service of the State.

Little is said of the Army Veterinary Service, for two good reasons. There is no shortage of suitable candidates for military vacancies; and the Army itself provides the post-graduate training necessary to fit its young officers for their special work. The Committee therefore find the Army

satisfactory; but it is otherwise with regard to the other public veterinary services. Here the supply of really suitable candidates is inadequate at present; and, as it seems certain that the demand will soon greatly increase, the shortage is a serious matter. This applies to the Board of Agriculture and to the Indian and Colonial veterinary services alike—both for administrative and research work, there is a deficiency of the best men. Further, it is recognised that the ordinary professional curriculum, while amply sufficient to fit a man for private practice, is far from meeting the more specialised requirements of the State Veterinary Service.

The Committee, while agreeing that good positions and prospects should be offered to State veterinarians, propose more radical alterations than those of promotion and pay. They desire, firstly, to encourage men who have received a good general scientific education to enter the veterinary profession, and, secondly, to afford facilities for extended post-graduate training to veterinary surgeons already qualified. Their two first recommendations—the curtailment of the professional curriculum to holders of a suitable science degree, and the institution of scholarships to such men—will fulfil the first of these objects admirably. At present, if a B.Sc. in Chemistry and Biology wishes to become a veterinary surgeon, he must spend a year practically working over his old ground; this is probably one reason why so few University men take up the profession. Under the proposed arrangement, such a B.Sc. could not only be exempted from a needless year's study, but might pay for his fees and residence by a scholarship.

The second object, too, will be fulfilled by the Committee's third recommendation—scholarships to enable qualified veterinarians to spend a year or more in a laboratory, which will make specialisation possible for men who would otherwise have been forced to remain in private practice. The Committee, however, rightly add that "The selection for Government appointments should not be restricted to men who hold or have held scholarships." A man may, of course, obtain the requisite qualifications elsewhere—but the scholarships will afford one means of obtaining them.

No recommendations are offered regarding our local veterinary inspectorate, but the report shows that it has received attention. The Committee agree that veterinary inspectors employed under the Diseases of Animals Act should be required to attend practical post graduate courses after qualifying. They also agree that "inspection of meat and similar work" should be entrusted to veterinary surgeons, and suggest practical experience under a veterinary officer after qualification as the fittest final training for it—a very sensible recommendation.

Some improvements in notifying vacancies in the public veterinary services are also advised, and the final recommendation is that "increased State aid should be given to institutions devoted to veterinary education." On the last subject the Committee, in their report, speak emphatically. The financial difficulties of the R.C.V.S. itself, and the slow progress made with our Bill, are sympathetically re-

ferred to; while a high tribute is paid to the importance of the work of the College. The Committee say of the R.C.V.S. that "its efforts to maintain a high standard of veterinary education in this country are worthy of every encouragement." The Government grants to our teaching schools are described as "very small," and it is added that "these colleges are probably more dependent on receipts from students' fees than any other class of educational institution of the same grade." This Committee say plainly to the Government, as other Committees have said, "Give more money to veterinary institutions."

In connection with the schools there is a suggestion that the first year's training in general science might be taken "at a university or college where such instruction could be afforded." We see no objection, so long as such institutions do not develop into complete veterinary schools; and the Committee do not propose that they should. Indeed, the Committee seem to realise that we are quite sufficiently schooled—and in fact overschooled—already. Similarly, the Committee realise that, apart from the special class of men required for public services, we have members enough for existing requirements; and they wisely deprecate any step likely to overcrowd the profession. In their own words, the problem before them was "How can the number of young veterinary surgeons fitted for, and desirous of, appointments in the Government services best be increased without causing an undue increase in the number of veterinary practitioners?" We think they have solved it successfully; and their recommendations, if acted upon, will strengthen the profession and benefit the State.

#### THE TREATMENT OF PLEURITIC EFFUSIONS.

At a meeting of the Central Veterinary Society on the 7th March, 1912, Mr. Guy Sutton read a short but highly interesting paper on "Some Effusions and Transudes commonly met with." In this paper he discussed, among other things, the question of tapping the chest in cases of pleurisy, and stated that he thought it the right thing to do, and had been successful in many cases when he had operated in the early stages.

In the discussion of the paper there were two or three who agreed with him on this point, but the majority said that in their hands the operation had proved an utter failure.

In talking the subject over with Col. Blenkinsop, I remarked that I had had no success in tapping the chest, and he suggested that the secret lay in tapping early, and said that he had been very successful in those cases that he had got at early enough.

I was having a fair number of cases of pneumonia in hospital at the time, so I decided to try tapping all cases of this disease directly they looked really bad. By this I meant that I would not wait until I was satisfied by auscultation and percussion that fluid was present, nor would I wait for the "pleuritic ridge" or any other so-called

diagnostic symptoms, but directly the breathing was really distressed I would tap.

My first few cases were so successful that I instituted this procedure as a routine practice in the Station Veterinary Hospital, Bulford, of which I had charge.

The record at present stands that forty cases have been tapped. In nine of these, fluid in appreciable quantity (from  $1\frac{1}{2}$  to  $9\frac{1}{2}$  pints) was found. *Every case in which fluid has been found has made a good recovery.* Of the 31 cases that were tapped and in which no fluid was found 2 died. Post mortem examination of these two cases proved one to be a pure pneumonia with no pleurisy, and the other, pneumonia complicated with a dry pleurisy. In both these cases careful search failed to discover any mark or indication where the trocar had penetrated, though in both cases puncture had been carried out two or three times.

Two points that were raised at the above-mentioned meeting were 1st, What chance of recovery is there when the fluid re-accumulates? and 2nd, Has the character of the effusion any bearing on the chances of recovery? In answer to the first I have to report that of the 9 cases two had fluid removed on two occasions, and in one case fluid was drawn off on three occasions; therefore one may say that though the case is complicated by re-accumulation the chances of recovery are still good.

In answer to the 2nd question, too much attention need not be paid to the colour of the fluid. I rather prefer to see it a clear pale yellow, but that is possibly more prejudice than anything else, for in the cases mentioned the colours varied from a very light yellow to a very dark claret.

The technique of the operation is simple in the extreme. The side of the chest for a small area is painted two or three times with Tincture of iodine (after clipping if the hair is long), the trocar and canula, previously sterilised by boiling, is introduced between the ribs in the usual way. If fluid is there the whole amount is drawn off and the canula withdrawn. I have not tried injecting any drugs. The right side is usually selected for puncture, but if there is any reason to believe that the fluid is likely to be found on the left side I never hesitate to tap that.

It will be seen from the above that I advocate the trocar and canula as a means of diagnosis. By doing this I do not wish to belittle the ordinary means of diagnosis by auscultation and percussion, etc., but I am firmly convinced that though it is easy enough to diagnose fluid in the chest when there are several gallons present, it is a most difficult matter to diagnose it when there are only a few pints. I will again quote Mr. Guy Sutton, who says, "The onset is insidious, and I have a genuine respect for the ability of the veterinary practitioners who can diagnose the condition in its early stages."

My contention is that the time for operation is when the effusion can be measured in pints. If we leave it until several gallons have accumulated, experience has shown that the chances of recovery have been greatly discounted.

To sum up, my conclusions are;

1. Puncture of the horse's chest, provided simple antiseptic precautions are taken, is absolutely harmless, and may be repeated on either side as often as is required,

2. It is the only satisfactory means of diagnosing effusion in its early stages.

3. If withdrawal of the fluid takes place before it has reached abnormal quantities, the tendency for it to re-accumulate is not very great.

4. In cases of re-accumulation, the fluid may be withdrawn several times and recovery take place.

5. The character of the exudate does not greatly affect the prognosis.

6. Early withdrawal of fluid reduces the mortality to an extraordinary extent.

7. It also shortens the convalescent period very considerably.

I have not dealt with this last named conclusion very fully, for I think it will be recognised by most as a self-evident proposition; for the process of resorption is always slow, and so long as any fluid remains the patient must continue in a critical condition.

#### THE RELATION BETWEEN PLEURITIC EFFUSIONS AND SYNOVITIS OF THE FLEXOR TENDON SHEATHS.

In connection with the foregoing cases I wish to put on record the close connection there appears to be between pleuritic effusions and synovitis of the sheaths of the flexor tendons.

In five of the nine cases I have described above as having made recoveries from pleuritic effusion, convalescence was interrupted by a sudden painful filling of the sesamoidean sheath at the back of the fetlock; in four cases it occurred in the fore legs, and in one case in the hind legs. In two cases it moved from the right to the left and then back again. The swelling was tense, hot, and painful, and there was generally a rise of temperature of one or two degrees, with slight constitutional symptoms. In no case did it occur less than two weeks after all febrile symptoms from the lung trouble had disappeared, and in one case it occurred fully six weeks after.

The treatment adopted was dry heat and Salicylate of soda, and all cases ultimately recovered completely.

Nothing of the kind was noticed in the thirty-one other cases that were tapped, so it seems to point to the fact that the connection, if any, lies between the pleuritic effusion and the synovitis rather than the tapping and the synovitis.

E. E. MARTIN, Major, A.V.C.

Deptford is now at the parting of the ways. Is the turn of Smithfield to come? An expert whom I met the other day takes a very gloomy view of the situation. Liverpool, Manchester, Hull, and other great centres are making, he says, a bold bid for their share of the frozen meat trade, and, with the advantages they can offer, the result must be to reduce Smithfield's turnover to an ever-increasing extent as the years pass by. Salesmen, too, are beginning to see what is inevitable, and already the more enterprising have made arrangements for opening branch establishments, so as to fall into line with the change that is coming about.—*City Press*.

## THE PINEAL BODY.

We are indebted to Lieut.-Col. Seaward Longhurst, F.R.C.V.S., for the following extract: it is taken from the "The Dominion of New Zealand," by Sir Arthur P. Douglas, Bart. (pp. 121-2).

## "TUATARA (SPHENODAN PUNCTATUS).

"The greatest peculiarity of this reptile is the presence of a third eye placed between and somewhat behind the two serviceable eyes. The study of this peculiarity has done much towards finding the solution of a problem of the greatest possible interest to the whole scientific world—a problem which has been looked upon as one of the most difficult in biology.

Lying above the centre of the brain of man is a little gland named, from its pine-cone shape, the pineal gland. Until recent years the function of this gland was utterly unknown, and had been the subject of the strangest guesses. In times past, foiled in their endeavour to account for the mysterious little gland, the old anatomists got over the difficulty and smothered their doubts by concluding that as the pineal gland was not anything else, it must be "the seat of the soul." This was solemnly passed on from book to book up to the very end of the eighteenth century. In the nineteenth century they honestly owned that nobody knew anything at all about it, but hoped that research would some day lead to the truth. Several anatomists of that century had fallen upon what has finally proved to be the right guess, but it was not until a few years ago that which guess was the right one was decided once for all.

Then the dissection of the head of a Tuatara led to the discovery of the origin of the pineal gland in vertebrates. It was found that in the centre of the Tuatara's forehead, between the two eyes, and only hidden by a thin membrane of skin, there lay hidden another eye, useless, indeed, and in a primitive state, but still an eye. This eye, it was found, formed the fore-end of the pineal gland.

The central eye of the Tuatara was not a third eye in process of development, but the first and single eye in process of being discarded by gradual degeneration continued through many generations. Prof. Parker has observed that in the Tuatara the nerve of the pineal eye degenerates before the animal reaches maturity, so that the organ would appear—though evidently from its structure an organ of sight—to have now entirely, or nearly, lost its function. Not a gain, then, of a third eye the Tuatara was making, but the loss of the first eye. The first eye, at one time his only eye, was in process of ages going, but with the vast gain, by way of substitution, of the laterally placed eyes, in other words, the development of a pair of eyes for one central eye. The one eye becoming less effective as the pair of eyes became more effective, then useless, and lastly sunk back into the head and hidden by a covering of skin."

## ANIMAL AILMENTS AMONGST THE BOERS

Every Boer is more or less competent—or considers himself so, at any rate—to treat his stock for any simple ailment, the remedies he uses being of a homely nature in which *Dop* brandy plays a prominent part, but in the case of serious illness, with the exception of "horse-sickness," he calls in the services of the largest stock-owner in the district. His reason for doing this is that he holds the opinion that a man who owns a large quantity of stock must be better acquainted with the ailments to which animals are subject than a man who is not so well provided for. There is of course no logic in such reasoning, but it is a very general opinion.

In the case of "horse-sickness" the Boer takes no steps to try to cure the animal. He believes that it is incurable, though the salted horses met with at times should prove the contrary. If you should point out this fact to him he will reply "but so few get well that it is not worth bothering about them."

In common with pneumonia in human beings, which it much resembles, "horse sickness" is highly contagious, but this view is no more generally accepted by the unthinking classes about the one than it is about the other. The Rinderpest which played such havoc with horned stock produced another rival in the art of healing to the aforesaid large stock owner in the person of the trader. When the Boers found that their own people were powerless to help them they turned in despair to the storekeepers, and these gentlemen rose to the occasion and laid in a large supply of remedies, some of a most weird description, which found a ready sale. As showing the credulity of the Boer of that day, when the visitation was at its height a Hottentot woman travelled through the Transvaal selling a "certain cure" that she had discovered. This woman reaped a rich harvest until she reached the borders of Natal, but was incautious enough to venture across and promptly received her deserts in a term of imprisonment.

The extension of the railway and the linking up of the main roads, and consequently easier and quicker means of locomotion, is resulting in the country people discarding their old narrow views, and to-day the services of the veterinary surgeon in town are often requisitioned in the case of any serious ailments. The treatment ordered is invariably carried out—with one exception, this is where the animal is condemned to death. The Boer believes in the old adage, "Whilst there's life there is hope," and, though the case be beyond recovery, shrinks from taking the final steps to ease the poor brute's suffering.

The establishment of public abattoirs is coming forward prominently at all the shipping centres in Ireland. This means the feeding and fattening of more cattle, the industrial utilisation of the hides, and the development of important businesses in connection with the offal and other subsidiary by-products. It also means the wider distribution and popularising of Irish meat.

## ABSTRACTS FROM FOREIGN JOURNALS.

## ASPERGILLOSIS OF CANARIES.

D. A. de Jong reports (*Centralbl. f. Bakt. u. S.W.*) the results of his examination of a number of sick and dead canaries which came from the breeding establishments of a municipality in the Netherlands. The history was that the disease had generally been regarded as contagious, that difficulty of respiration had been the chief symptom, and that the affected birds bore fresh air and cold better than sojourn in heated, ill-ventilated rooms.

The author, on examining the living birds, found them in great respiratory difficulty, gasping for breath, and often holding their beaks open. In many cases he observed small, white-yellow, crusty deposits upon the tongue and palate.

Post-mortem, he found the same deposits at the entrance to the larynx, in the trachea, and at its bifurcation. Yellowish caseous centres of varying size were also found in the lungs, on the pleura, and occasionally also on the peritoneum and in the liver. Death occurred in consequence of the violent dyspnoea.

The chief micro-organisms isolated were diplococci and the mould fungus *Aspergillus fumigatus*. The diplococci had no pathogenic effect either upon canaries or upon the ordinary animals of the laboratory. The mould, however, proved highly pathogenic for rabbits. On the other hand, attempts to infect canaries by the inhalation of great quantities of powdered and very pathogenic spores invariably failed.

In the latter connection the author mentions that Schütz, in 1884, was able to infect some canaries in this manner; but he believes that other means of infection come into the question in this disease. In the case now under report he explains the origin of the illness from the unhygienic conditions under which the birds were kept, viz., darkness and narrow cages. He believes that the latter are really answerable for the pathogenic effect of the infection, which, he presumes, arose first from inhalation.

In support of this conception the author states that he succeeded in improving the condition of the affected birds by removing the unhygienic surroundings. After thorough disinfection of the cages and rooms with creolin the introduction of fresh air and avoidance of the administration of dusty or mouldy food (which he effected by scalding the food) improvement followed.

(Pfeiler, of Bromberg, commenting on the above, adds that he has occasionally seen similar anatomical and bacteriological conditions in the dissection of so-called "short-winded" birds. Birds affected with this disease usually continue to live for some considerable time in "good spirits, but are often affected with hoarseness, totally discontinue singing. According to Pfeiler's knowledge this disease, which in Germany is especially observed amongst well-bred singing canaries of both sexes, is

not regarded as infectious. That this is not attributable to better hygienic conditions is clear, Pfeiler thinks, to everyone acquainted with the circumstances; for German canaries, in most breeding establishments, are kept unhygienically).—(*Berliner Tier. Woch.*).

## THE FREQUENCY OF TRICHINOSIS IN DOGS AND CATS.

Hjortlund, commissioned by Prof. Jensen, examined 500 dogs and 100 cats from Copenhagen and Frederiksberg in the period from January to April, 1912. He reports (*Maanedskr. for Dyr-læger*) his results. Two dogs (equalling 0.4 per cent.) were found to be trichinous, and also two cats (equally 2 per cent.) Hjortlund finally states his conclusions from his extensive researches as follows:

(1) All investigations carried out hitherto show that dogs and cats are much more frequently trichinous than are pigs which have been brought up in the same neighbourhood. Cats, again, are more frequently trichinous than dogs.

(2) The present researches show that the dogs and cats of Copenhagen are often trichinous; but they also show that trichinosis in dogs and cats is on the decline.

(3) This decline is probably due to the inspection of pigs' flesh for trichinosis. It may therefore be expected that if in the future all pigs in Denmark are submitted to compulsory inspection for trichinosis, the disease in dogs and cats will diminish still further.

(4) Assuming that dogs and cats are infected exclusively or mainly by the ingestion of trichinous pigs' flesh, it follows that the systematic examination of dogs and cats may be used as a method for observing the effect of the trichinosis-inspection of pigs.

(5) The bodies of dead dogs and cats, on account of the frequency of trichinosis in them, should always be disposed of in such a way as to ensure their harmlessness.—(*Berliner Tierärztliche Wochenschrift*).

W. R. C.

## NATIONAL VETERINARY ASSOCIATION.

## SOUTHERN BRANCH.

A meeting of the members of the Southern Branch of the Association was held at the Royal College of Veterinary Surgeons, 10 Red Lion Square, on Wednesday, the 8th Jan. The President, W. Hunting, occupying the chair.

On the proposition of Mr. Male, Reading, seconded by Mr. Willett, Sir Stewart Stockman was unanimously elected President of the Branch.

On the proposition of Mr. Archer, Southsea, seconded by Mr. J. Crowhurst, Canterbury: Mr. Theo. C. Toope Dover, the Secretary and Treasurer of the South Eastern Division, was appointed to the office of Secretary to the Branch. This concluded the business.

THEO. C. TOOPE, Hon. Sec. and Treas.



## THE CENTRAL VETERINARY SOCIETY.

A general meeting was held at 10 Red Lion Square, W.C., on Thursday, Jan. 2nd.

Mr. H. A. MACCORMACK (Hon. Sec.) stated at the commencement of the meeting that the President, Mr. J. W. McIntosh, had written saying that, "owing to the fact that he had to be out of London from the 31st Dec. until the end of the present week, he was sorry to say that he would be unable to be present. He desired the Secretary to convey to the meeting, and particularly to Mr. Livesey, his regret at his absence and his wishes for a successful meeting." In the absence of the President it was customary for one of the Vice-Presidents to occupy the chair. He therefore moved that Mr. Foreman take the chair.

This was carried by acclamation, and the chair was then taken by Mr. R. J. Foreman.

The following Fellows signed the attendance book:—Messrs. G. H. Livesey, James Rowe, F. G. Samson, B. Gorton, J. F. Macdonald, D. Stewart, Nicholson Almond, R. Bennett, J. B. Buxton, D. H. Wood, R. A. Philp, R. J. Foreman, Prof. J. Macqueen, H. D. Jones, P. W. Dayer Smith, C. H. Sheather, W. Perryman, J. A. Gosling, E. Lionel Stroud, F. O. Parsons, S. H. Slocock, Guy Sutton, Herbert King, P. S. Howard, and Hugh A. MacCormack, Hon. Sec. Visitor: Mr. G. Yates.

On the motion of Mr. Almond, seconded by Mr. Dayer Smith, the minutes of the previous meeting were taken as read and confirmed.

*Correspondence.*—The Secretary stated that, in addition to the letter received from the President, Mr. McIntosh had also sent a wire saying "Best wishes for successful meeting."

Letters of regret were also received from Lieut.-Col. Blenkinsop, Messrs. T. S. Price, Coleman, and Willett, the last of whom said "I am sorry that I am unable to be present at the meeting. I therefore asked Prof. Wooldridge if he would bring forward the motion standing in my name, and he has kindly agreed to do so if he is present. Failing him, the President has kindly agreed to bring it forward for me."

The SECRETARY read the following letter from Sir Stewart Stockman:—

Dear Sir,—I have heard from the treasurer, Mr. Garrett, that he requires a *thousand pounds* before the end of the year, and he asks me to do my best with the various Societies to accomplish this.

Might I ask you to be good enough to appeal specially and individually to your members, who have promised an annual subscription, to send in the first instalment before the end of the year, if they have not already done so.

Subscriptions other than those which are being paid annually will, of course, be welcome, but it has occurred to me that those who have promised to subscribe annually will probably be the most likely to do so before the end of 1912.—Believe me, yours truly,

S. STOCKMAN, Hon. Sec.

December 14th, 1912.

The SECRETARY reminded several of the Fellows present that on previous occasions they had given him their names as subscribers towards the 10th International Veterinary Congress, but there were several present who had not done so, and he intended to make a personal application to them after the meeting for subscriptions.

## MORBID SPECIMENS.

Mr. MACDONALD exhibited a portion of a trachea from a six-year-old van horse that had a very bad attack of purpura in the summer and had to be tubed. The tube was removed and the horse had been at work for

about three months. That morning he received a telephone message saying that the horse was roaring very badly, and requesting his attendance at once, but the horse died in half an hour, before he could get there. On making a post-mortem he found there was a great deal of granulation tissue, but an abscess on the back part of the trachea appeared to be the principal cause of the trouble. It had about two ounces of thick pus in it. The particular point of interest was the fact of the sudden onset of the roaring killing the horse so quickly.

Mr. McDonald also exhibited a specimen of an old trachea of the same sort.

In reply to a question by the Chairman, Mr. MacDonald said he had no idea how the abscess occurred. The horse had been working well up to the present week. He went out to work that morning and was brought home. The trouble must have been gradually coming on.

The CHAIRMAN exhibited a specimen of intussusception in a six or seven month old fox terrier. It illustrated one of the problems of every day dog practice, and showed the way in which a practitioner might be misled. He was told that the dog had eaten the upper portion of a shoe, which had made him ill, but he did not vomit any of the leather. He treated him with medicinal petroleum and sedatives. He was called in to see the dog originally on Christmas Day, and as he was progressing very slowly he administered that morning a dose of arecoline. He found after an interval of about five minutes that arecoline was contra-indicated, and he assisted the dog to its end. On post mortem he found it was a case of very bad intussusception.

Mr. ALMOND inquired whether the Chairman felt the leather through the abdominal wall.

The CHAIRMAN said owing to the flatulence he could not examine well, but that he did feel something, but it was evidently not the leather. No worms were present.

*Election and Nomination of Fellows.*—Sir STEWART STOCKMAN, M.R.C.V.S., Board of Agriculture; Prof. E. B. REYNOLDS, M.R.C.V.S., Royal Veterinary College; J. B. YOUNG, Esq., F.R.C.V.S., Braintree; LINDSAY AUCHTERLONIE, Esq., M.R.C.V.S., 31, South Wharf Road, W., were unanimously elected Fellows of the Society.

The following gentlemen were nominated: Mr. J. B. RUTHERFORD, 56, Worship Street, E.C.; Mr. SYDNEY L. SLOCOCK, Junr., Hounslow, and Mr. F. J. TAYLOR, 165, Church Street, Kensington, W.

MOTION *re* SANITARY CONGRESS.

In the absence of Mr. Willett, Prof. Wooldridge and the President,

Mr. SLOCOCK moved: "The Central Veterinary Society views with much dissatisfaction that, according to the reports of their Delegates to the Sanitary Congresses, the resolutions arising from the debates of the Veterinary Section are not embodied in the Reports of the Congress, owing to the said debates being held on the last day. They are of the opinion that no further delegates should be sent unless better facilities are offered." In doing so he said that he thought veterinary surgeons had not been well treated at the Congresses for years past. It seemed to have been an almost invariable rule for the business of the Veterinary Section to be transacted on the last day of the meeting, while it was well-known that the subjects dealt with on the earlier days received the greatest consideration. As veterinary matters were considered only on the last day of the Congress the various resolutions that were passed were too late for embodiment in the Report of the Congresses, so that they were almost entirely useless. Putting it quite vulgarly, the veterinary surgeons were simply allowed to rot; they were forgotten and put in the background. It was rightly thought that the veterinary profession should receive better consideration at the hands of the various Congresses, and it was Mr. Willett's



and Prof. Wooldridge's idea that delegates should no longer be sent to the Congresses unless better treatment was accorded to the veterinary profession in the future. Personally he thought that the Congresses might be approached and better consideration obtained for the profession without the necessity of withdrawing the delegates in the future. He formally proposed the resolution.

The CHAIRMAN pointed out that in the Report he submitted at the last meeting the statement was made that Mr. Hugh Begg, of Lanark, at the Congress suggested that veterinary surgeons should try and get their meeting held simultaneously with the Medical Officers and Sanitary Engineers, and personally he thought that would be a good idea if it could be carried out, because the work overlapped a great deal.

Mr. PERRYMAN, in seconding the motion, said that some years ago he was one of the delegates at the Bradford Meeting, and so far as his recollection went the meetings of the Veterinary Section were held on the last two days of the Congress, so that it was impossible for the resolutions arrived at to be passed by the general body. Therefore the Veterinary Section was ignored in the sense of being ignored by the whole Congress. The objection at present was that it was a meeting practically of veterinary surgeons only, and that could be obtained any time at any of the meetings of the various Veterinary Medical Societies. What was required was a general discussion with the medical and other delegates, so that not only would veterinary surgeons be able to forward their own ideas but the interests of the Congress generally. If meetings could be held combined with some of the other Sections it would be greatly to their advantage. He thought steps ought to be taken to get the meetings held earlier in the Congress combined with some of the other Sections.

Mr. ALMOND said it seemed clear that the Veterinary Section did not receive justice at the hands of the promoters of the Congresses, and he was sure all present desired for their own benefit and the benefit of the public that subjects which interested them and were of importance from a public health point of view should receive more attention. The question to be considered was whether the objects they had in view would be attained by withdrawing the delegates and not sending them to the Congress. If what the previous speakers had said was correct, it would not be obtained, and therefore it was important that something should be done besides simply withdrawing from the Congress. It might be worth considering whether a motion should not be passed and communicated to the authorities who governed the Congress in order to obtain a better position for veterinary surgeons. The suggestion thrown out by Mr. Hugh Begg deserved careful consideration, because the sphere of action of veterinary surgeons lay in the same direction as that of medical officers of health. Before actually carrying out the proposal he thought some steps should be taken to enforce the importance of the views that the veterinary profession held in regard to the Congresses. As the Chairman was the last representative of the Society at one of the Congresses, it would be of interest if Mr. Foreman could enlighten those present as to the *modus operandi* by which their claims could be enforced.

The CHAIRMAN said he did not see how they could enforce them at all; it was entirely a question of the courtesy of the administrators of the Congress as to whether the veterinary meeting was fixed at an earlier date or not. As far as he could judge, the time of the Congress was fully occupied at present, and he thought some of the amusements would have to be dispensed with if the meeting was held earlier, unless the Veterinary Section was combined with the Medical and the Sanitary Engineering. He suggested that a resolution should be passed to the effect that the National should

approach the Sanitary Institute and ask them if they could let the Veterinary Section meet at an earlier date.

Mr. ALMOND moved as an amendment that the consideration of the subject be adjourned until the next meeting, in order that the Fellows might hear Mr. Willett's views on the subject.

Mr. SHEATHER seconded the amendment, which was carried.

## NOTES ON SOME PROBLEMS OF EVERYDAY DOG PRACTICE.

By G. H. LIVESY, M.R.C.V.S.

I want this to be, not so much a paper, as my opinion as to how certain things are best treated, and afterwards a discussion on your part as to whether I am right or wrong. In that way I know personally I shall gain a great deal of information which at the present time I am sadly in want of.

First of all I would like to mention the subject of ear canker. I have been taking a great deal of notice of this for a good many years now. I was much struck eight or ten years ago by Mr. Gray telling me that in his opinion a great many cases of ear canker were caused by parasites, and that he was practically certain that in 90 per cent. of all cases of canker found in Persian cats the presence of acari was the cause. Working on that theory I searched very carefully for these acari in every case of canker that has come under my notice. By searching I mean that where I got an ear that was not actually purulent, but dry and perhaps showing some brown discharge more or less dry, like dry and decomposed cerumen, I have taken a wipe out on a small piece of cotton wool on a pair of forceps, examined it under a lens, and I have been astonished at the number of cases in which I have found acari present. I think I can now say that I am certain that all those cases of ear canker in the dog in which we find irritation, with little or nothing to show for it when we examine the inside of the ear, or in the next degree those cases in which we find perhaps just a little bit of brown stuff, but still the irritation; and still further those cases in which we find a large amount of brown discharge or excrement, the result of the presence of acari, with the meatus inflamed—I am certain that all those cases are due to the presence of acari. If we do not find acari present it is not because they are not there, but because we have not been lucky enough to find them. I say that advisedly, because I have hunted for three or four days running in a dog's ear and found nothing in the way of an insect or the trace of an insect under a microscope and a hand-glass, and perhaps on the fifth or sixth day I have found numbers of them. I have felt certain then that my failure in the first case was not because they were not there, but simply because I was unlucky or not careful enough in searching, and so unable to find them.

Supposing that I am right, and that a very large percentage of cases—I think I can say 80 or 90 per cent.—of ear canker are due to the presence of insects, the next question is, How are we going to get rid of them? and that is my trouble. I have tried everything that I could think of. I have had moderate success with some and absolute failure with others, but complete success I can honestly say I have very seldom yet had. To allay the irritation and to endeavour in some way to kill these creatures I will mention a few of the remedies I have used: Zinc oxide lotion, Sulphur lotion, Oil of staves-acre, Iodoform, Lysol, Formidine, Fir tree oil, Glycerine, Glycerine and perchloride of mercury, Tincture of iodine, and various dry dressings and ointments, such as Zinc oxide ointment. Sulphur lotion I found fairly satisfactory, I think due to the fact that when the sulphur which is carried in suspension had got into the ear and came in contact with animal secretions, sulphuretted

hydrogen has been formed, and that has gone a long way towards killing the mature insects. But I cannot say it has been successful in destroying the eggs, because in three or four weeks it is quite possible that the canker has returned. With regard to oil of stavesacre, which is so well spoken of by many people. I think it an extremely disappointing drug. One may get nine samples out of ten that are absolutely worthless, and one sample which is very efficacious; and the trouble is that when we come to buy a fresh supply we cannot be certain of getting it from the same sample; it is very unreliable. Iodoform I have had very good results with, but then we are limited again in its use. How many ladies will tolerate your putting iodoform into a dog's ear when they want to have the dog attendant about them in the house? Fir tree oil—I do not know what it is—I was induced to use because a botanist told me that he found it invaluable for destroying small insect life, such as blight and so on, and that it was invaluable in the destruction of ticks. I tried it on ticks, and it does destroy them, but I cannot say I am sure that it destroys the acari in a dog's ear. I have tried it in a cat's ear, and it nearly drove the cat mad. It sets up a considerable amount of irritation. Glycerine I have been advised to use in the destruction of small insects by Sir Stewart Stockman. It is a very fine thing if you can keep it constantly on the insects, but there again you have to fill the ear with glycerine, and a good many animals object very strongly to that. I have had better results by using a solution of Perchloride of mercury and glycerine in the strength of 1 in 250; and if the animal will not tolerate that, you can add a little water to it to make it a little thinner—it is fairly efficacious. I think perhaps the best results I have had were obtained from using Tincture of iodine. I know it sounds a terrible thing to pour Tincture of iodine into the external auditory meatus, but I have done it repeatedly, and if the animal is not a fidgety creature I have taken a swab of cotton wool, put it on the end of a pair of forceps, put it in iodine, swabbed out the meatus, left it for five or six days, and repeated it once a week for three or four weeks. You get a certain amount of scaling, but certainly a great amount of benefit. I have not tried it long enough to say that it is absolutely a cure, but such cases as I have tried it in have very materially improved under that treatment. If any of you can tell me of a certain, safe, and painless cure I shall be very much obliged.

#### FRACTURE OF RADIUS.

Another point of interest which has occurred to me in dog practice is, What is the proper treatment in a case of simple fracture of the radius? In certain breeds of dogs, such as fox-terriers, Airedales, and so on, a great deal of their value, and certainly one of their great show points, is straightness of limb. It is necessary for them to be perfectly straight from the point of the shoulder down to the wrist.

In a case where a dog has been bitten or damaged by being run over, and you have a simple fracture of the shaft of the radius, either in its middle or in its upper third, my old practice in dealing with it was to a bandage and splint on; leave it on for about three or four weeks, take it off; give the dog limited exercise, gradually increasing it daily, and the bones certainly mended very well. But I noticed that afterwards the dog lost its straightness of limb to a great extent, and there was a distinct dip at the seat of fracture. My idea was to overcome that if possible. In human beings, in a case of simple fracture of the radius, no surgeon would dream, so far as I am aware, of putting the limb into ordinary flat splints and bandages, and putting it in a sling round the neck. I do know of a case where this was done, with exactly the same result that occurs

in dog practice where you put splints and bandages on a dog's leg, that is to say, you get a dip at the seat of fracture.

To overcome that, in human practice they put on a splint to tilt the wrist downwards, to give it a pull on the lower end, and they support the arm very little, in order that the muscles of the upper arm, which are attached to the radius, may draw the end upwards, and so avoid the dip and get the two ends of the bone in proper apposition. The thumb is put round the splint and the fingers strapped down to it, or bandaged round by a piece going at right angles, in order to keep the arm in that position and rest the bone. Otherwise the two broken ends of the radius dip, come into apposition with the ulna, and a large callus is thrown out; and on movement or rotation of the arm you get the callus rubbing and making a false joint with the ulna.

In the case of a dog you cannot do that. A dog's wrist is straight; you cannot bend it to one side in order to raise the radius from off the ulna. Even if you did put his wrist and foot into that position it would not remain there long. As soon as the dog is left alone he will tear the bandage off and make his foot straight again. So that I have tried just letting it alone. I put a cold-water bandage on for the first day or so to reduce the pain and the swelling, and then give the dog limited accommodation, so that he can move very little; and after the first week I have given him very little movement. I just let him run about for two or three minutes in the morning, and two or three minutes in the afternoon; I gradually increase that, and at the end of three weeks the dog is putting his leg down and running pretty well; and at the end of four weeks you will not know that he has hurt his leg at all, except that when he walks very slowly and has to sustain weight on that leg he will fail just a little. Some dogs get better even quicker than that. I take it that once the inflammatory condition has gone out of the leg at the end of the seventh or eighth day you begin to get union—soft union certainly—and provided the movement between the end of the bone is not excessive during the second week and well into the third you may begin to get deposition of bone, and provided movement is not excessive there is no reason why you should get a false joint. Anyhow, the cases that I have had prove to me that one does not get a false joint. I have three cases at the present moment which have had no treatment whatever, except limitation of movement and great care in handling to see that the dog is not too wild, because after a little confinement dogs get very boisterous, and if you are not careful they will knock the leg, bang it against corners or furniture, and so undo the good that has been done by the continued rest they have had. I could show you a dog that had a fractured radius twenty-two days ago that is now running about practically sound; you can only see any lameness on very slow movement. I showed the dog last Saturday to a judge of fox terriers, and asked him which leg was broken. I held the legs straight out to him in front of me, but I did not let him touch them. He picked out the sound leg, but when he felt it and felt the callus, he expressed the opinion that the broken leg was much better to look at than the sound one. I was rather pleased to hear that, because it gives me some encouragement to proceed further with that treatment. I have mentioned this before to other veterinary surgeons, and they have all said, "Yes, but what has the owner got to say about it? Will any owner tolerate your accepting the case and then doing nothing in the way of treatment?" My answer to that is very emphatic: If people cannot trust me sufficiently with my method of treatment they had better take their dog somewhere else, and I think that is the answer we should always give.

## OTHER FRACTURES.

Following on simple fractures of the radius, there are other cases where, in my opinion, bandaging is of no use. Without taking up too much time, I would simply mention that I think it is positively criminal to put a bandage on a broken femur or broken pelvis. Keep the dog as quiet as you can, and let him come back to his exercise very slowly. If you put a heavy bandage, or plaster, or splint on in a case of broken femur, particularly in the case of the upper third, or the neck at the head of the femur, you are only adding to your trouble, because you are giving a larger weight for the dog to swing about, and I have not seen any arrangement by means of which one can keep the two ends of the bone in perfect juxtaposition. There is bound to be a certain amount of movement, and if you add weight to the end of the limb you are only making matters worse.

## SPINAL MENINGITIS.

Then there is another point I should like to direct your attention to, and that is the question of spinal meningitis. Twelve or fourteen years ago one heard very little about spinal meningitis. At that time I myself never recognised it; I always called it what it is very generally called to-day, acute rheumatism. But it is noticeable nowadays that there is a very great increase in nervous complaints, particularly in this complaint, spinal meningitis. Here Mr. Gray was ahead of most of us. He described it in a paper that he read before the Southern Counties Society, I think, on what he called Chronic ossifying pachy meningitis. That is undoubtedly a fairly common disease, particularly in long-backed dogs, such as Dachshund and so forth, where we see it fairly frequently. But we also see it nowadays much more frequently than formerly in terriers and short-backed dogs, and I have noticed that one sees it now in many dogs at the same time almost, as if there were an epidemic of it. Apart from seeing it in the form in which we generally see it, I have noticed frequently during the last eighteen months that one has a dog brought with spinal meningitis; the head thrown back into the body, the muscles of the neck thickened; tense, in a state of tonic spasm almost, screaming if it is touched, screaming for minutes if its head is raised or moved to one side, unable to walk and so forth, the usual symptoms of acute pain caused by this spinal pressure. The muscles of the neck are very much affected, particularly the levator humeri.

In many of the cases that I have seen in the last 18 months I have noticed that, in addition, there has been a great enlargement of the lymphatic glands in the neck and of the prescapular glands. These cases in which you get the glands much enlarged I find take very much longer to recover, and are frequently followed by permanent paralysis; and it has occurred to me that possibly this may be of bacterial origin. I do not know if that has occurred to anyone else. In humans we have cerebro-spinal meningitis, which in nine cases out of ten is fatal. This disease in the dog is not, but one attack seems to make the dog more susceptible to a second, and if repeated attacks occur, according to their severity, depends the likelihood of subsequent paralysis in one pair or both pairs of limbs. I should think it is quite possible that it may be bacterial, partly on account of this enlargement of the glands, and also that it comes, anyhow to me, distinctly in epidemics. I should like to know if others have had similar experience, and if they can give any other explanation of it.

My general treatment has been first of all to relieve the pain, because until you relieve the pain you can do nothing with the dog. The salicylates, particularly aspirin, are invaluable in relieving pain, and in order to overcome the lack of power in the muscles, the so-called weakness that the owner tells you of—I find you can do nothing better than use iodides—potassium iodide given

over a long period, combined with perhaps from 1/250 to 1/90 grain of strychnine two or three times a day after food, according to the susceptibility of the dog.

## LUXATION OF PATELLA.

A case that often comes under my notice is a dog suddenly taken lame in the hind leg, snatching up his hind leg and unable to put it down. On examining these cases very frequently one finds that the dog is suffering from luxation of the patella. Here again is a case in which one can do very little by means of drugs or surgical appliances. You cannot put an indiarubber kneecap on the dog because it will not stay in place, and I believe the rubbing in of linaments to be quite useless. The dog probably in running after an indiarubber ball on a linoleum floor of some other slippery surface has skidded, turned round suddenly, the kneecap has got displaced, has jerked to one side, and has stayed there. The ligaments have been stretched, and if he does not move his knee very carefully in future it is always apt to slip again. If that case is not attended to carefully and not dealt with pretty quickly, it is possible that the dog will continue lame throughout the whole of his life. You will see that particularly in the toy breeds with very fine bones like Manchester terriers, whippets, and so on.

If you get at it at once I believe you can make an absolute lasting cure within three weeks; but if it is left over for several days the dog will acquire the habit of carrying that leg, the muscles will atrophy, and you will have a very great deal of difficulty in making him put it down again. Also, you will not get the joint to regain its tone so well. My system of dealing with that for a long time has been always the same, and I believe Mr. Sewell uses exactly the same method. Of course his experience is very much greater than mine, and I am glad that I am on the same tack. The best thing to do under the circumstances is, I think, to get the owner to have a swivel hook put on a little piece of cane or stick about two feet long, and a little leather loop on the other end. Hook that into the dog's collar, and make the owners keep the dog to the side of their leg when they walk, and walk him for ten minutes morning and afternoon, at the rate of about one mile an hour and not more, so that the dog has to go along slowly. If he uses all his legs perfectly evenly, and has to put his weight evenly on all four legs one after the other, the kneecap will never slip, the joint will very quickly regain its tone, and I will guarantee that in three weeks he is going perfectly sound. Then he can gallop and race just as much as he likes. But if they only half do it and let him have a run and a walk, and a run and a walk, it will not have the same effect, and the case will be a failure. I am not giving you the results of one or two cases; I think I can perfectly safely say I have had over 30 or 40 absolutely certain recoveries where that treatment has been properly carried out. The ordinary lead will not do, because a dog in that condition will sit down or wait till it comes to the end of the lead, and then it will trot forwards and wait, stand still and wait, give a little trot and a stop, and a trot and a stop, and that will defeat the object you have in view. Hook the stick into the collar, keep him absolutely by you and he cannot dodge it; he has to walk it, and if he walks and puts his weight evenly on all four legs your end will be attained.

## INTERDIGITAL ABSCESS.

Another subject that I want to mention is interdigital abscess. That is one of the most awkward things we have to deal with. The only treatment for interdigital abscess that I have had any good results from has been total extirpation, that is to say, I take a knife and slit the whole thing up and dissect out what I will call all the wall of the abscess. If I find any dead tissue or any black lumps I clear them out, paint the whole thing with

iodine, or rub it over with a piece of sulphate of copper, and leave it to heal, taking care that it heals from the bottom, and does not close until the whole of the place in which there has been an abscess has been entirely obliterated. That is the only way in which I have had good results, and I cannot say that has been even successful, because the trouble has recurred in spite of that treatment. I suppose my cauterising has not been severe enough. I have noticed that in the bottom of these interdigital abscesses one finds little black grains. What they are I do not know, unless they are melanin. It appears to me, from noticing what I find inside them, that the abscesses more often than not arise from the glands of the skin of the foot between the pads. They do not arise on the upper side at all. The skin of the sole being much thicker and more horny than the skin on the upper surface, the pus has found its exit in the line of least resistance. Very often the roots of the hair growing from the skin on the inside are found well into the abscess; they project from the surface of the skin on the lower side, and very often these small granules in the abscess look like granules of melanin, but whether they are so or not I do not know.

Among other causes of interdigital abscess I have found several different kinds of foreign bodies, particularly the heads of wild barley grass. This depends upon the district in which the dog lives. Down in our part of the world, on the chalk cliffs this wild barley grass grows in profusion, and there is seldom a summer or autumn goes past that I do not get some twenty or thirty cases where the grass has got in between the toes and burrowed right under the skin. I have taken it out from between the claws, I have taken it out from abscesses in the arm, and even the back of the elbow where it has worked its way right up from the foot.

#### ABNORMAL LACTATION.

I have been written to by two or three practitioners from different parts of the country at one time or another on the question of abnormal lactation, so I thought I would mention that subject to-night, as apparently it is interesting to some practitioners. Abnormal lactation does occur in the maiden bitch, and sometimes is a very awkward thing to deal with. It occurs at the time when puppies would be normally expected by a bitch, i.e., at from 58 to 65 days after the period of heat. The glands become enlarged and full of milk, and unless the milk flow is stopped or treated you may get a distinct milk fever, the bitch going off her food, sometimes being upset, vomiting, sometimes accompanied by diarrhoea, with the glands distinctly inflamed and the dog evidently ill. A great many practitioners make a mistake in these cases of drawing the milk off. If once you begin to draw the milk you increase the flow; you only make matters worse, because if you create a demand, nature will give the supply. I think the rational way to deal with the case is not to create any demand, and then nature will no longer supply. Owners should be warned against drawing the milk. Some people tell me that they do it twice or three times a day in order to give relief. I think this case is quite easily dealt with, and should cause no alarm. At the first sign of the glands swelling, give the bitch a good dose of magnesia, Epsom salts or calcined magnesia in the food—anyhow, some saline aperient, and gently rub the glands with belladonna and glycerine. Be careful not to use too much belladonna.

I remember a case of poisoning through that which I reported in one of the journals, from the dog licking the belladonna. Use the belladonna with discretion. Belladonna in glycerine will stop the flow, and take the pain away often in a couple of days.

The owner should be warned against a recurrence at some future time, because in bitches where it has happened once it nearly always happens again. I might also

mention that an opinion is held by breeders, and also by a good many practising veterinary surgeons, that the whole thing can be stopped by letting the bitch breed; that if once she has a litter of puppies such a thing will never happen again. That is absolutely wrong. I have had a case within the last six weeks in which a bitch had had five puppies previously, and the next time she came on heat it was followed by this abnormal lactation just the same; and I have known that many times previously.

#### WORMS.

I am often asked why it is that when a dog is sent to a veterinary surgeon to be treated for worms the treatment is so often unsuccessful. I think that very often depends upon the owner; the owner will not prepare the dog properly to receive the worm dose. But that is not always the reason. Undoubtedly, if one can give a worm dose and get a quick action with a profusion of worms, one gains a fair amount of *kudos*. People like plenty to look at for their money. But on many occasions one can dose a dog in the ordinary way and get no result at all; then the owner will take him to somebody else, who doses him without any particular care, and he gets a result at once. He gets all the *kudos*, and the other one gets all the blame. That has happened to me many a time.

It seems to me that the reason for this is that for some reason or other the worm dose administered by the first man has not really come into contact with the worm itself. Many of the worms lie, as we know from post-mortem examination, embedded in the intestinal mucus. If you want to get rid of the worm you must make him let go.

I do not think one vermifuge is better than another, although some are praised and some are blamed. But they are all good, and every one that I have ever tried has been efficacious—not always in every case, but in the majority of cases. I think in order to obviate failure you must first of all see that the dog is free from food. He should really have a good starvation for 24 hours; he should be starved beforehand, or be given a good dose of oil or saline to clear the intestinal mucus away and prepare him for the worm dose. When the worm dose is given, in order to get a result I think you want to follow it up within the hour by something to ensure a prompt action of the bowels. It is not enough to give, we will say, taenalin, or one of the other few favourite preparations to shift the worm, if the dog is slow in its action of the bowels. You may give a dose at 10 o'clock in the morning, but when you come back from your rounds at 4 o'clock in the afternoon the man says the dog has passed nothing, and you have a failure. Whereas if you dose him at 9 o'clock, and if he has not been sick, at half-past nine give him an enema of warm glycerine and water, you have an action in another ten minutes; and I will guarantee that in nineteen cases out of twenty you will have the worm too, because if the dog is moderately empty the vermifuge passes over the head of the worm and makes him let go. Your purge shifts him from his place, and if you will stir the bowels up to act quickly while he is free in the bowel you will get rid of him before he has time to get hold again.

#### CAT INFLUENZA.

Another thing I should like to mention that has been puzzling me for a couple of years. We have an illness down at Brighton, and, I believe, in other parts of the country, which at first I believed to be cat distemper. It has symptoms more or less resembling cat distemper, but I think those who watch it very closely will find there are a good many symptoms which differ from cat distemper. It has been a great puzzler to me; in fact I have been absolutely "stumped" by it. I have called it cat influenza. I am a great lover of cats; I have

seven pet ones, and I have an infirmary for cats, and keep a lot of them; and I have seen a lot of this cat influenza. I know how easy it is to lose cats and kittens from distemper, and valuable ones, too. But this disease is not quite the same. I am not at home all day watching the symptoms, so I asked my nurse, who is with these cats almost constantly, to put together a few rough notes as to what she sees. She has done so, and I will let her speak for herself. She says: "This disease seems chiefly to attack cats of under three years old, although of course cats above that age are frequently attacked by it. Generally the disease seems to prove less fatal with the older cats than with those which have it while young. There are three distinct forms. The most common form is where the cat is afflicted with violent and incessant sneezing and running at the eyes and nose. Cats under a year old as a rule do not lose their appetite, but they are quite unable to eat or drink." That is what perhaps only a nurse would notice, and what we as veterinary surgeons might very well overlook. She says the cats do not lose their appetites. If any of you have noticed cats during distemper you will know that one of the first things they do is to go off their feed, and they remain off their feed and die very often because they do not go on to their feed again. Here is a disease in which they eat, but "There is violent sneezing and running at the eyes and nose." But she has omitted to say that for three or four days before they will dribble from the mouth, there being streams of saliva. A cat will go to its milk and be only too anxious to take it, but it cannot get it into its mouth. The jaws seem unable to take hold of food. You know quite well that a cat, if it cannot smell frequently, will starve itself to death. Whether it is instinct or not I do not know, but it has a dislike to taking anything into its mouth which it cannot smell. There is one thing which the nurse has noticed which makes it different from ordinary cat distemper. "Cats under a year old as a rule do not lose their appetite, but they are quite unable to eat or drink for, in some cases, four or five days, although they would willingly take food, but the attempt to lap milk or to take food in the mouth seems to cause such violent sneezing that it prevents the cat from swallowing, and the cat generally is unable to do anything but sleep and sneeze until, after four or five days, the sneezing becomes less violent; then the cat is able to feed and will do so ravenously, although the sneezing and weakness of the eyes continues for six weeks, sometimes longer.

With cats of over a year old the sneezing usually ceases, and the lungs are affected. The cat has great difficulty in breathing and sits upright, with the tongue out, panting and evidently distressed." This is, of course, pneumonia. "They mostly, however, if proper care is taken, make a good recovery, but for some weeks the cat will dribble at the mouth and occasionally choke over its food." There again she notices something—that the cats who sneeze loudest and dribble most are generally the most successful cases. "The cats that look worst at the beginning often make the best recoveries." "Intermittent diarrhoea is sometimes one of the symptoms, but it does not as a rule seem to affect the cat at all. This form of cat influenza, although very distressing to the cat, appears to be the least fatal form, as it is seldom that the cat does not recover under suitable nursing and surroundings.

There is another form of influenza which occurs mostly in kittens of between three and eight months old. The kitten sleeps more than usual for one day, and the following day—generally commencing early in the morning—is continually sick, each effort of sickness appearing to exhaust the kitten more each time. It refuses all food, and lies stretched out, with a distressed look on its face; the eyes gradually assuming a sunken appearance

and the face getting a pinched look about it. Towards evening the kitten seems to be attacked with pain in the lower part of the stomach, and if allowed will stretch itself on a cold stone or oilcloth floor. As the night goes on the kitten has continual paroxysms of acute pain, and draws its hind legs up to its body and rolls about unable to rest. Twenty-four hours from the commencement of the sickness generally sees the end.

I have seen several cases of that this last winter in which a little cat, apparently in perfectly good health, has been very sleepy for a day or so, perhaps only one day; that day has been followed with acute pain with sickness in the morning; then the sickness stops, and then it is simply tied up in a knot with pain. One expects that it has swallowed something, or got a stoppage. They are difficult little things to handle, and before you have made up your mind what to do the cat has died. I have made many post mortems and have never been able to account for death. I have found no acute inflammation. The only thing I have been able to find has been a more or less enlarged condition of the mesenteric glands.

"Sometimes diarrhoea is present, but not always. In cats of over a year this form of influenza is not so acute or so sudden as with young kittens. The cat will sit about hunched up for a day or two before the sickness commences, and is generally ill for three or four days, but does not show signs of such violent pain as the young kittens do, but the disease generally proves almost as fatal.

The third form of cat influenza appears only in cats over a year old. For about three weeks the cat seems to sleep more than usual and eats less than usual, but does not appear particularly ill. The coat is spikey, the cat's face is pinched, and the eyes slant upwards and are sunken. Gradually an intense depression seems to come over the cat; it loses interest in everything and nothing seems to rouse it. There is no sickness or diarrhoea, but there is an unpleasant smell about the cat. When roused from semi sleep the cat will perhaps for some days eat a little food if coaxed, but it becomes more and more wasted, and sinks into a sort of stupor from which it cannot be roused, and so dies."

I have seen a great many of those cases, and I cannot say that to my mind that represents ordinary cat distemper. I have tried various kinds of remedies. The ordinary bismuth remedies are of no use at all. The least useless, perhaps, is the salicylate of bismuth. I think probably one gets the best results by giving a cat from 1/6th to 1/4th of a grain of salicylate of quinine, and then let it be fed and nursed very carefully. That is the most I have been able to do.

If anyone has any experience of this trouble I shall be really grateful if they narrate it, because among cats, particularly the more valuable cats, there is really a great loss of life, and a loss of a very great deal of money, since nowadays cats are bred to be worth a great deal of money. If we can find out something that will prove useful in the treatment of this trouble we shall really benefit our clients and do some good for ourselves.

On the motion of Mr. Guy Sutton, seconded by Mr. Sheather, the discussion on Mr. Livesey's paper was adjourned to the next meeting.

A vote of thanks having been accorded, on the motion of Mr. Jones, seconded by Mr. Stewart, to Messrs. MacDonald and Foreman for bringing forward their morbid specimens, the meeting terminated.

HUGH A. MACCORMACK, Hon. Sec.

It was stated in the House of Commons last week that 686,595 animals were exported from Ireland from June 30th to December 30th, 1912.

### THE WEST OF SCOTLAND VETERINARY MEDICAL ASSOCIATION.

The meetings for 1912 were of a most interesting and instructive character. The numbers of members present were also well above the average of former years, and although the Association is not wealthy, its financial position is thoroughly sound.

The subjects at each of the meetings were dealt with in discussion form.

The first, "Lameness in cows"—a subject seldom given but a passing touch in our veterinary literature, was taken up most ably and exhaustively by Mr. Hugh Begg.

The second, "Some foot lamenesses in horses" was dealt with by Mr. George Weir, whose opening, although more suggestive than exhaustive, was much appreciated, and formed the basis of a bright and interesting discussion.

#### LAMENESS IN COWS.

By HUGH BEGG, F.R.C.V.S., Hamilton.

Mr. Chairman and Gentlemen,—When I got Mr. Mitchell's letter some ten days ago, telling me that he was depending on me to open a discussion on some subject at this meeting, I confess that I had a recollection of being pressed to promise something of this kind before leaving our last meeting. For several reasons I was on the point of seeking to have my turn deferred till our Summer meeting, but, knowing a secretary's difficulties, I could not muster courage to write such a cold reply to Mr. Mitchell's tactful, pleading letter. I have not had time to prepare anything special and so I thought if I started a discussion on "Some lamenesses in Cows" the subject might afford a fairly good field for interchange of opinions.

To the equine practitioner who is so circumstanced that attendance on cows does not come within the province of his professional duty, this subject may not appeal, and he may be excused if he harbours the thought that it is sufficiently unimportant to merit a back seat among the themes worthy of discussion at any meeting of veterinary surgeons. But when we consider the many painful diseases of feet, joints, etc., to which dairy cows are liable, and how very readily the amount of milk secreted by a cow is influenced by even slight discomfort or pain, it is at once apparent that the subject is not unimportant either to the owner or his veterinary adviser.

The reluctance which many owners and veterinary surgeons have to properly attend to diseased feet timeously and regularly has been responsible for much loss, not only in milk yield and flesh, but often in lives of the victims. If the practitioner expects clinical success with these cases, he will find it extremely evasive if he is content to give instructions, leave dressings, and preserve his own hands unsoiled.

My intention is to limit my remarks to a few of the more common and serious diseases of feet and limbs met with in routine dairy practice.

Though occasionally one encounters a dairy cow affected with Articular Rheumatism, my experience is that it is not common in Ayrshires over three years old in the West of Scotland. It is more often seen in bulls, and I have always looked upon the want of a proper stall so constructed as to ensure a constantly dry bed as the provoking cause. How often is it the case when no effectual provision is made for draining away his urine the animal's bed is always wet, filthy, and malodorous, and each time he rises he has to suffer the evil effects and discomfort of the chilling process of evaporation over a large part of the under surface of his body!

The preventive means are obvious, but if there is no proper male stall, the less bedding he has the better. Of all the joints of the fore limb, the "elbow" is probably most often injured. Trouble at this situation is usually met with in cows that are "chasers," or that have been in "season," and it is of course rather common in bulls. I have repeatedly witnessed how the joint was strained in the "bulling" animal. The served animal, instead of moving off straight ahead, or standing stationary, wheels round and unbalances the server, which being unable to swing clear comes to earth with one leg athwart the other's croup, and the downward fall of the body weight produces such forcible abduction of the limb as severely strains the elbow joint. Sometimes the injury sustained is so serious as to necessitate slaughter: in less serious cases the application of stimulating liniments and blisters is beneficial, with complete rest. If a blister is used the animal should be so tied that the lame limb is next to the wall. This prevents licking of the parts.

On one occasion I met a case of elbow joint disease caused by the puncturing of the joint with a piece of wire that had peregrinated from the stomach. During life the case was very obscure, but the post-mortem produced an easily read picture. Foreign bodies that have the luck to be diverted to the outside of the lung instead of proceeding direct to the heart, usually seek an exit at the same level as the elbow joint, and the swelling which they occasion on the chest wall, if near to the elbow, sometimes causes lameness and pain in movement, and discomfort when the animal is recumbent.

Sprains of the shoulder, knee, fetlock, and lower joints are occasionally met with and usually present little difficulty in diagnosis. Blisters may be applied when the parts can be so covered as to prevent licking of the blistered surfaces. If this is not possible, milder measures should be adopted. The rough tongue of a cow soon removes the hair and epidermis from any blistered surface that she can reach, and I have repeatedly met cases where cows kept the part red, raw, and bleeding for many weeks, the adjacent as well as the new epidermis becoming quite horny from the constant irritation to which it was subjected.

A painful bruised condition of the front of one or both knees is sometimes seen in nervous, hysterical cows that, having lost confidence in their movements on a slippery floor, come down full tilt on their knees. The resulting pain is often so great that the animal seeks relief by extending her forelimbs in front over the edge of the feeding trough, and this usually makes matters worse. In such a case the cow should be removed to a stall with no trough and she should be provided with 2½ sq. feet of turf let in at proper level to stand and lie down on the front, and hot fomentations should constantly be applied to the knee, and these can be easily kept in position by means of a more or less waterproof tube of sufficient width, and bandages.

Intense inflammation of the fore fetlocks and tissues around is a common pyæmic condition accompanying suppurative mammitis or endo-metritis, but this sequel to these conditions is not so common as are hock lesions.

In the *hind limbs* no joint is so often strained as the stifle, in fact, I believe that nine-five per cent. of hind leg lameness are located in the stifle or the foot. The slippery condition of the otherwise ideal granolithic floors of cowsheds is responsible for most of the cases of stifle lameness. The distension of the joint capsule, which results and the pain evinced on manipulation, make diagnosis easy. When a cow has one weak stifle, ineffectual efforts to rise readily lead to a similar state of affairs in the other stifle. When seen to early, my experience is, that the application of a good sharp blister to the broadside and front of the joint is of great value, but care must be taken to preserve the inside of



the thigh as well as the udder from the action of the blister.

A slight sprinkling of sand should always be applied to slippery floors before animals are moved out or in and this should never be omitted on the stalls of nervous animals or those that are suffering from anything that militates against safe rising and lying down, such as milk fever, staggers, other paralytic affections, sore feet, joint trouble, etc. If more attention were paid to this detail, fewer of these patients would become spread-eagled. This accident usually happens in the early stages of nervous disorders, or just when recovery has begun, and when it does occur, there is usually much injury to the hip joint, muscles of the thigh, and the stifle, and because of this the animal, even when recovered from her intoxication, cannot control her hind limbs, which readily slip sideways and the body descends between the abducted limbs, renewing and aggravating the injuries already referred to, and the cow has to be slaughtered.

The hock is the most common seat of the pyemic arthritis that so often appears as a sequel to suppurative in the womb or udder. The condition simulates acute rheumatic arthritis. The inner aspect of the joint becomes swollen and painful, and usually the effusion into one hock precedes the other by twelve to twenty-four hours. The cow is disinclined to rise and has much difficulty in getting up. When up she is ill at ease and soon goes down again. Owing to want of care in diagnosis this condition is often mistaken for spinal trouble, and the poor animal has to suffer needlessly, and may be repeated counter irritation of the back.

It also occasionally happens that many ineffectual attempts to rise are responsible for a hygroma in front of the sternum due to severe bruising of the brisket against the feeding trough when the cow is endeavouring to get up. This appearance of the brisket might be mistaken for that observed in advanced cases of traumatic pericarditis, but you can readily differentiate between them. When a cow with a sound heart has a swelled brisket she is almost certain to have had hock mischief, and her history usually reveals that this has been a sequel to a streptococcal infection of the womb or udder. For treatment of this arthritis of the hock, mild stimulating liniments may be repeatedly applied with much massage, but, because many heavy bodied, deep milking cows tolerate decubitus badly, the sooner the pain is relieved the better. It was my practice in these cases to clip the hocks and rub in thoroughly a small quantity of fly blister, afterwards covering each hock with a length of an old trouser leg, so fixed that it would keep its place and yet allow flexion of the joint. This covering of the hocks, when a blister is used, has to be done properly if you would avoid blistering of the teats and all that that means.

#### LAMINITIS.

I venture to say that this disease of cows' feet is but seldom diagnosed and treated in the early stages in the dairy herd, and yet there is abundant evidence in the feet of many aged, highly fed Ayrshires that they have suffered from laminitis. This is not to be wondered at, since many cows never walk a single step for months on end. Much might be said on this subject, but I will only add that the disease in dairy cows is seldom acute, and that the chronic inflammation that leads to marked deformation of the claws is probably due to continual high feeding on farinaceous food stuffs.

Unlike the horse, the hind feet of cows are most liable to laminitis and it may be that the inordinate backward slope of many stalls is responsible, causing the hind limbs to sustain constantly more than their due share of the body weight, while the hind feet are often in the dung channel, and we have to remember that the hind claws are usually weaker than the fore ones. When a cow's feet have become deformed, she is considerably

crippled and suffers both in flesh and milk yield. By the use of a good, sharp farrier's knife and a pair of hoof clippers two or three times a year, much can be done in a few moments to give her comfort and improve her appearance.

#### GATHERED NAILS.

The sole of a cow's foot is so thin that even a very short tack is long enough to reach and wound the sensitive tissue and give rise to lameness. These are often so difficult to find that very careful washing and scraping of the sole of the claws are necessary. The treatment is obvious.

Bruises of the sole are nowadays not common in dairy cows.

#### "CLITTLE."

This term is applied by stockowners in the West of Scotland to every suppurating condition found in the feet of cows that has not been set up by a known traumatic cause.

Clinically, I recognise three outstanding types, and though the first two may simulate the third in their later aggravated stages, they deserve separate mention on account of the distinctiveness of their earlier lesions. I will sketch them briefly:—

##### I. Sloughing of part of the Coronary Band.

This I have met most often in the fore feet, and the lesion is usually situated anteriorly. It is a most painful affection, and the animal suffers from much irritative fever till the slough separates, and even after that, if fistulae form. It is probably due in most cases to a poisoned puncture, and it would seem as if the necrosis bacillus was at work.

*Treatment.*—When the small coronary swelling appears thin the horn immediately below and incise the swelling with a lancet, then saturate with a strong antiseptic solution, and poultice constantly, having a pad of cotton wool steeped in antiseptic between the poultice and the lesion.

If sloughing occurs, dress twice daily with antiseptics and later with astringents and bandage.

##### II. Simple Clittle.

By this term I refer to a scalded and weeping condition of the interdigital membrane. This condition is remarkably infectious and I have seen and dressed thirty-four feet of twenty-eight cows that became affected in four days, mostly in the hind feet. On examination we find the interdigital skin inflamed and moist with a discharge of a distinctive and offensive odour, and sometimes the part is fissured. If taken in time one dressing usually suffices. After cleaning the parts, saturate with carbolic or other antiseptic lotion, apply some Archangel tar and bandage securely. Venice turpentine is also a good dressing and so also is a slight touch of butyr of antimony, applied with a feather and followed by a tar dressing. If neglected, these causes soon acquire the serious aspect of the more formidable third form of Clittle.

##### III. Complex Clittle.

This title refers to those cases in which it would seem the invading bacteria very early gained access to the deep seated interdigital tissues, producing destructive changes and much swelling towards the heel. This form is also infectious and though not so rapidly so as the simple clittle referred to: it is not uncommon to find ten per cent. of a herd suffering in one foot, and the byre may not be free from the disease for a long time. It is usually introduced by a bought in cow.

The pain suffered, though not so nipping as that of simple clittle, is more profound, and no measure of relief is obtained till the parts burst at the heel in the direction of least resistance. If neglected at this stage, infection of one or both coffin joints (a very short step) results,

whitlow being set up. When this occurs the patient suffers much pain from open joint, fistulae, and the sensitive granulations that form between the claws, and the best that can be hoped for then is that the cow may be able to stand up to the complaint and not become a complete wreck.

The healing process may be delayed for two months or more, and the end is ankylosis of the affected joints and a deformed foot. I have often been compelled to slaughter at once soft tempered, heavy milch cows in the early stages of this complaint which could not handle themselves, and were threatened with bed sores from decubitus.

*Prevention.* Whenever one such case occurs in a cow shed, wash and disinfect the hind feet of every inmate and smear the interdigital space with tar.

*Treatment.* As soon as a cow is seen to be lame with swelling between the heels, wash and disinfect the foot thoroughly, apply a blister to the coronet, and put the foot in a small bag, which should be secured by means of a bandage to the shank of the limb. This may seem unscientific treatment, but in my experience it gives quicker relief and keeps the cow at her work better than any amount of dressing or poulticing. On the third day re-apply antiseptics and then poultice for three days. Thereafter cleanse the parts, and if there has been a little destruction of tissue, careful dressing soon effects a recovery.

But, if you find that the foot has burst behind, incise the interdigital membrane on both sides from front to back and remove all the necrosed and disintegrated tissue, cleanse thoroughly and dress the open sore with strong carbolic lotion, insert pad of cotton wool, steeped in the lotion, and apply a bandage. Then put the foot in a bag as recommended after application of blister. The dressing is to be changed daily and care should be taken to keep the settles clean.

If lameness now subsides, you may judge that the joints have escaped infection, and in the course of ten days a tar dressing may be applied. But if the pain increases and the coronet swells, no treatment is calculated to help matters very materially, and the case will be in the nurse's hands for two months or so, demanding a variety of treatment. I have never amputated the diseased claw, but think I might often have done so with advantage.

#### FUNGUS-LOOKING WARTY GROWTHS.

These, between the bulbs of the heel and reaching to the ground, are occasionally met with, and cause lameness, and much inconvenience to the sufferer. With the patient cast and the foot fixed, the growth should be removed with the knife, then sear with hot iron and apply an astringent tarry dressing. These growths are apt to recur.

Any milker whose duty it is to dress diseased, discharging feet, should thoroughly wash and disinfect his hands before milking. Neglect of this precaution is apt to be followed by cases of mammitis.

I am sorry I have only had time to deal in a rather crude fashion with these ailments, but I hope what I have said may give the lead to a good discussion.

#### SOME FOOT LAMENESSES.

By GEORGE W. WEIR, M.R.C.V.S., Glasgow.

Mr. Chairman and Gentlemen,—When our Secretary asked me, or rather reminded me of a forgotten promise to present a subject for discussion at this meeting, I was rather at a loss, but at that time I had several bad foot cases in hand, and I thought if I could lay before you my views on one or two foot lamenesses we are constantly coming across in city practice, it would raise a good discussion, and thus many of us might learn

something. I do not intend entering very fully into each or any of them, but will be quite satisfied to set the ball rolling.

#### SANDCRACK.

This, as a rule, is easily diagnosed, firstly by the peculiar gait of the animal. The foot is laid down heel first and then sharply drawn backwards along the ground, then there may or may not be a fissure in the hoof wall quite apparent, and the slightest tap on the hoof in this region settles the diagnosis.

For many years I treated this condition in the following way: Having pared out the crack to ascertain if there was pus present, and also to give it vent, I ordered the foot to be put into a tub of hot water for an hour or two, to be followed by a poultice. This fomenting and poulticing was kept up until the animal went sound, when the crack was cleaned out, clapsed, and often wrapped up with tarry string, the crack having previously been filled up with hot tar.

I have now almost discarded the tub and poulticing, and treat thus: With the searcher, pare out the crack and if pus is present give it vent. Rasp and clean the hoof thoroughly. If possible syringe out the cavity where the pus was lying, dress with antiseptics, cotton wool or carbolised tow, and bandage. When the animal is sound, and not till then, V-fire the sandcrack and blister the coronet. Occasionally we are asked to treat this disease when there is no lameness, then I simply V-fire and blister the coronet, and in the majority of cases the hoof grows down intact.

#### SEEDY TOE.

I have had one or two very bad cases of this lately. In one case there were three feet affected and one of the feet, the near fore, separated as far back as the quarters.

In treating this disease while keeping the animal at work, we must pare out all the mealy horn, if possible, from the solar surface. If the separation is so far up that it is impossible to get at the top of it with the searcher, and the separation is only at the toe, then I find it better to bore a hole through the wall at the top of the separation, and if necessary to extend the hole, and through this to scrape out the unhealthy horn. Wash out the cavity with crude carbolic and dress with hot tar and carbolised tow. If we have found it necessary to bore the wall, the dressings can be easily kept in position either with string or bandage round the foot, or a plate may be fastened over the hole.

#### SPECIFIC CORONITIS.

This is a disease which assimilates canker very much, but is much more amenable to treatment.

I have seen a number of cases of this disease, but only twice have I had very bad cases to treat, and in both cases the coronary cushions of all four feet, the ergots and chestnuts were affected. The coronary cushions were swollen, fissured, and bleeding in places, and the horn of the wall also fissured half way down the foot.

My method of treating this disease is—after having removed all loose horn at the coronet and having rasped, the fissured wall, I paint with one part Creosote to four parts of Olive oil daily, occasionally repeating the paring and rasping as I think necessary, the animal being kept at work if not lame. I found this treatment in both cases thoroughly satisfactory.

#### QUITTOR.

Necrosis of a part or parts of the lateral cartilage characterised by a discharging sinus or sinu externally. The sinus may not be at the coronet; I have had several cases of necrosis of the lateral cartilage with a sinus on solar surface between the bar and the heel, but not on the coronet. The discussion of the treatment of this disease alone would be quite sufficient to take up our time at this meeting and perhaps at another.



I have no doubt that those of us who are any length of time in practice have tried various methods of treatment. Charging I have no faith in at all. Actual cautery I am afraid of. I have had good results with syringing, although the period of treatment was somewhat long; but excision of the diseased + a margin of healthy cartilage I would strongly advocate as the most scientific, surgical and satisfactory treatment.

I do not advise an operation immediately. To me, the greatest difficulty is when to advise operating. I have treated cases with simple treatment for weeks, and just as I was making up my mind to operate, "resolution" set in, and the animal was all right. On the other hand, I have operated and found that had I done so long before I did the operation would have been much easier, the foot would have been more normal looking, and the animal better able to stand the chloroform, which is necessary to do the operation properly.

When the sinus is at the heel, either discharging at the coronet or on the sole, there is little danger in the operation. If this form of Quittor is operated on early—before there is a sinus at the coronet—it is a simple job, and there is no necessity to interfere with the coronary band. I will not describe my method of operating: suffice it to say that I have never attempted to extirpate the whole cartilage, but only a part—the necrosed part and a margin of the healthy cartilage adjoining it.

Mr. DOUGLAS: While agreeing with the most of Mr. Weir's remarks, added that Quittor was not such a serious disease to treat now as it used to be. He had considerable success with Hydrogen perchlor. He also was a great believer in the knife.

Mr. BEGG drew attention to the fact that Mr. Weir in discussing Sanderack had omitted anything about the method of shoeing a horse with Sanderack, and thought this a very important point. While agreeing that poulticing was practised too much at one time, he held that if one either applied the poultice oneself or saw it properly done, considerable benefit might be derived from it. He also agreed with Mr. Weir in advocating complete anaesthesia for the Quittor operation.

Prof. J. R. McCALL thanked Mr. Weir for his remarks in opening the discussion. He did not agree with the definition given for Quittor, and said that Quittor was not always necrosis of the cartilage. He also had had good results in the treatment of Quittor by charging.

Messrs. Macfarlane, Mitchell, Macgregor and others joined in a good discussion of the various points brought out by the opening speaker, and votes of thanks to Mr. Weir and the chairman brought the meeting to a close.

## PUBLIC VETERINARY OFFICERS.

### SCARCITY OF SUITABLE CANDIDATES.

There was published on Jan. 16th the report [Cd. 6,575] of the Departmental Committee appointed last August by the President of the Board of Agriculture and Fisheries "to inquire into the requirements of the public services with regard to officers possessing veterinary qualifications, and to consider whether any further measures can with advantage be adopted for the selection and training of students with a view to such employment." The committee was constituted as follows: Sir Alfred Hopkinson, K.C. (chairman); Sir Thomas H. Elliott, Sir Thomas W. Holderness, Mr. H. J. Reid, C.M.G., and Major G. F. MacMunn, D.S.O. Sir Thomas Holderness resigned in October on his appointment as Permanent Under-Secretary for India and his place was taken by Mr. Francis C. Drake, who had succeeded him as Secretary of the Revenue and Statistics Department of the India Office.

Dealing first with the Army Veterinary Service, the Committee state that the number of officers in this department is about 170, and that the requirements of the service are adequately met at the present time. They therefore make no recommendations relating to this branch. The evidence indicated that it was the ambition of the best students.

The Indian Civil Veterinary Department and the Colonial Veterinary Services have not equal fascination for the profession, and the result in both cases is a deficiency in the number of suitable candidates. The number of veterinary posts in India, other than those of a subordinate character held by natives, is 32, and there are about 40 such positions filled by the Colonial Office. There is often difficulty in filling these offices. It is pointed out that the duties in India and in the Colonies are exceptionally difficult and require men not only of sound scientific training, but of initiative and resource. The committee refer in complimentary terms to the large and highly-organized veterinary service that exists in the Union of South Africa, and also to the provisions made in Canada and Australasia for the inspection of meat as well as for the control of disease.

### RESEARCH AND SCHOLARSHIPS.

The committee make recommendations with a view to removing immediate obstacles and offering greater ultimate inducements to enter the profession. They believe it is not an increase in the aggregate, but a larger proportion of the right class of student that is needed to meet the requirements of the public services. There is no need to add to the number of teaching institutions—there is even a suggestion of greater concentration—but the curriculum might, they think, be amended to shorten the course of study, and cheapen the cost, for students already possessing a thorough grounding in general science. At present a four years' course is prescribed for every student, without regard to his qualifications when he enters the veterinary college. It is suggested that in the case of a student possessing a suitable science degree the course might be reduced to three years by exempting him from the subjects in which he had already taken his degree. This proposal was approved by representatives of the Royal College of Veterinary Surgeons, and the committee also state that the question of recognising university courses of a shorter duration than that required for a degree as qualifying for exemption is worthy of serious consideration. These suggestions are made with the object of inducing university men to adopt the profession, which to students of ability and initiative will in the future offer good prospects both at home and abroad.

Modifications on the lines indicated, the Committee think, together with a rise in the scales of salary authorised for Government posts, and special facilities for research work, would lead to improvement, but they are also of opinion that it would be desirable to offer State scholarships both before and after the candidates graduate. They accordingly recommend the provision of 12 scholarships, each of the annual value of £80, tenable for three years by students attending the veterinary colleges. It was generally agreed among the professional witnesses that the course for the qualifying diploma was not of itself sufficient training for future officers in the Government service. At least a year in post-graduate work and study would be a great advantage, and in order to enable young members of the profession to continue their education along suitable lines, the committee recommend the institution of scholarships of not less than £100 and not more than £150 each, tenable for one year, to be given at the discretion of a Selection Committee appointed for the purpose, which would choose the institution and the particular work in which the student was to specialise.

The committee do not think it desirable that the veterinary appointments in the different Government services

should be "pooled," but they recommend that notices of vacancies should be sent to the veterinary colleges and also to universities and other institutions.

The time has come, in the opinion of the committee, when increased financial assistance should be given by the Government to institutions devoted to veterinary teaching, "the efficiency of which is of great importance to the State." They mention particularly the Royal College of Veterinary Surgeons, the work of which is seriously hampered by lack of funds.

The committee, all of whom sign the report, express their appreciation of the assistance rendered by Mr. H. L. French as secretary.—*The Times*.

### "Scrapie" in Sheep.

At a meeting of the directors of the Scottish Chamber of Agriculture held at 5 St. Andrew Square, Edinburgh, a letter was read from Mr. Andrew Oliver, Hawick, in the course of which he said that in moving about he heard a good deal of talk amongst sheep farmers about a disease called "scrapie." Some said it was only contagious, and others that it was infectious, but there was no doubt it was happening in many districts, and it occurred to him that it was a subject which the Chamber should take up and have investigations made to get at the cause and cure. It was a sort of itch on the skin. The sheep rubbed, tore off their wool, got as thin as as rakes, and died.

Mr. McKerrow thought that the Board of Agriculture should be asked to schedule the disease. This was agreed to.

### What is a good operator?

Dr. John Stewart, of Halifax, Nova Scotia, who was well acquainted with Lister when he took up his first London appointment at King's College Hospital, writes as follows in *The Canadian Practitioner* :—

"It was said by some that he was not a good operator. Well, what is meant by a good operator? Operating is the smallest part of surgery. It is by the results we judge. Up to Lister's time no man had had such brilliant results. I think if we were the patients we should prefer a careful, painstaking, thoroughgoing surgeon to any one with ambitions for a spectacular exhibition to the gallery. There were men who could amputate a breast with two strokes of the knife, and leave the wound to granulate. Lister might spend more than an hour, carefully removing it, clearing out the axilla, and bringing the edges of the incisions together. There is no one who hesitates as to who doing the best operation. But I should be sorry to convey the impression that Lister was inexperienced or hesitating in his manner. Where there was need for speed he was not lacking in this accomplishment of the surgeon. And all who are familiar with his plastic operations must have admired these. The bold, swift, unerring strokes of his incisions, the perfect apposition of the flaps, the provision against tension, gave him better results than I have ever seen elsewhere. In one thing more Lister was a truly great surgeon—he was of infinite resource. No unlooked-for accident, no complication found him unready. He was pathologist as well as surgeon. And yet one thing more. There is no man who remembers Lister's hospital work who was not impressed by his humane spirit, his tender regard for the mental and physical suffering of the poor who came under his care."

### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended Jan. 13	11		13				3	13	83	185	12	34	247
Corresponding week in	1912	24	25				3	4	127	344	7	64	816
	1911	25	27				4	23			27	43	475
	1910		31	37			7	18			34	18	115
Total for 3 weeks, 1912	38		48				12	56	243	586	38	107	1509
Corresponding period in	1912	66	75				11	28	509	1438	50	167	1700
	1911	57	60				13	50			95	109	1238
	1910		95	121			19	47			115	69	397

† Counties affected, animals attacked: Kent 1, Lancaster 1, London 10, York, West Riding 1. Board of Agriculture and Fisheries, Jan. 21, 1913.

IRELAND. Week ended Jan. 18	...	...	...	...	...	...	...	...	Outbreaks 8	14	4	8
Corresponding Week in	1912	...	...	...	...	...	...	...	...	22	2	35
	1911	...	1	1	...	...	...	...	5	37	2	49
	1910	...	...	...	...	...	...	...	1	35	...	58
Total for 3 weeks, 1912	...	...	...	...	...	...	...	...	29	45	18	85
Corresponding period in	1912	...	1	1	...	...	...	...	4	62	7	135
	1911	...	1	1	...	...	...	...	7	69	12	233
	1910	...	2	2	...	...	...	...	9	80	1	59

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Jan. 20, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

**Infection from Manure.**

In answer to questions by Mr. Munro Ferguson, Mr. Mr. Runciman replied: Manure is not removed from the wharves until all the animals have been closely examined by a veterinary inspector of the Board, and found to be free from foot-and-mouth disease. It is then thoroughly mixed with quicklime before removal. The cattle are isolated for three weeks as a safeguard against the spread of infection, in case disease, which may have been in the incubative stage during the period of quarantine, should afterwards develop. Though there is no evidence to support the supposition that manure produced by animals in the incubative stage of the disease is infective, it is desirable as a precaution that the manure should be disinfected in the manner which I have described before it is removed from the wharves.

**The Importation of Foxes.**

In the House of Commons Mr. Runciman replied to a question by Mr. George Greenwood, Member for Peterborough, that the importation of foxes into Great Britain from foreign countries is regulated by the Importation of Canine Animals Order of 1909, a copy of which he was sending to his hon. friend. It is provided by the Order that no fox shall be landed except by a licence of the Board. Thirty-eight foxes of various kinds were landed in 1910, ten in 1911, and eight in 1912, and of these six in 1910, two in 1911, and six in 1912, were taken direct to zoological gardens or menageries, the remainder were detained on private premises, and he had no information as to the purpose for which they were landed.

**The Waste of Medical Experience.**

When an old practitioner who has for many years been wrestling with disease in all its forms passes away, one cannot help a feeling of regret at the irreparable loss of the experience which dies with him. Books we have in abundance and superabundance, and the reports of cases which fill our columns and those of other journals generally contribute something to the sum of knowledge or help in the extinction of error. Without such records progress would be impossible, and even discounting the natural enthusiasm of the pioneer, every case honestly reported adds a stone to the slowly rising temple of truth. But what would we not give for the fruits of the ripe experience of a man like Jenner or Gull, who are represented in catalogues by a few papers and addresses! What would we not give, too, for the experience of a man who had been in general practice for half a century, who had seen many whom he had brought into the world grow up and in their turn become parents and then pass away, all the time under his observation! Such men seldom have time to write down what they see and what their practice has taught them. Often, too, they have not the faculty of exposition. Generally such experience is so personal to the man, consisting as it does of the accumulated impressions of all the senses gathered by long observation, that by its very nature it is not transmissible to another. It was in this that the old system of pupilage had an advantage which modern scientific training, with all the apparatus of the clinical laboratory, fails adequately to supply. There is the physiognomy of disease, the interpretation of which has, owing to the large use of instruments of precision, become almost a lost art. There is the knowledge of that subtle something, called for convenience "constitution," which so often makes all the difference between success and failure in treatment, and other still more intangible things which together make up the knowledge a man acquires in practice.—*Brit. Med. Jour.*

**A Police Expert?**

"He is an expert," said the presiding magistrate (Mr. E. Edwards) at Bargoed Court on Friday, referring to Police sergeant W. H. Williams, Ystrad Mynach, who was giving evidence in a case in which Benjamin Smith, 36, greengrocer, Ystrad Mynach, was charged with cruelty to a horse.

The expert officer described the horse driven by defendant as "old, decrepit, and worn out." It was lame in both fore legs, and as the animal was going down an incline it was particularly noticeable that it was in pain. The shoulder had evidently been dislocated at one time, and had not been put back right.

In answer to Mr. Edward Lewis, who defended, witness said that the animal suffered from some disease of the fetlock joint.

Upon Mr. Lewis giving the Bench an undertaking not to work the horse until it was examined and declared to be fit to work, the Bench dismissed the case with a caution.—*Western Mail* (Cardiff)

**Anglo-Saxons in the Tropics.**

Dr. Richard Arthur, Parliament House, Sydney, writing to *The Brit. Med. Jour.*, asks for the opinion of those who have had experience of such places as the West Indies, British Guiana, Mauritius, Ceylon, and India as to whether there is any hope of the successful and permanent settlement of British-born or descended people in regions between Cancer and Capricorn. At the present time the subject of the colonisation of the Northern Territory of Australia has come into practical politics, and there are many in the Commonwealth, including those in authority, who insist that only Anglo-Saxons, or, failing them, Northern Europeans—such as Danes and Swedes—should be encouraged to settle there. The wives and children of the workers will have to remain continuously in the tropics.

**Personal.**

Prof. A. GORTON, F.R.C.V.S., was appointed Additional Examiner in Veterinary Hygiene for Degrees in Science in Agriculture, at a recent meeting of the University Court of the University of Glasgow.

Principal McCALL (referee) and Messrs. ANDREW ROBB sen., F.R.C.V.S., Glasgow, and DAVID IMRIE, M.R.C.V.S., Bishopbriggs, were appointed veterinary examiners for the forthcoming Glasgow Stallion Show.

Mr. JOHN BROWN, veterinary surgeon, Perth, was appointed inspector of dairy cows for tubercular disease at a meeting of the Perth District Committee of the County Council. Mr. Brown, who had previously practised in England, did similar work under the Lanarkshire County Council, where he inspected yearly over 1200 cows.—*N. B. A.*

**OBITUARY**

JOSEPH MARSTON PARKER, M.R.C.V.S., Birmingham.  
Graduated, New, Edin: May, 1853

Mr. Parker's death occurred suddenly from heart failure on Wednesday, 15th inst., at his residence, 41 York Road, Edgbaston. Mr. Parker, who was 80 years of age, was one of the leading veterinary surgeons in Birmingham for the greater part of his life. He was a member of the Royal College of Veterinary Surgeons, and enjoyed a large and lucrative practice. Expert in his profession, he was the official upon whom the local authorities invariably relied for evidence in cases of cruelty to animals. For many years he practised in Cannon Street, and when that thoroughfare was rebuilt he removed to more commodious and up-to-date premises in Moor

Street. With advancing age, however, he relinquished the activities of his profession, and of late years had lived in retirement. Mr. Parker was a brother of the late Alderman Lawley Parker. The funeral was on Monday at Edgbaston Parish Church.—*Birmingham Daily Post*.

WILLIAM WYER, V.S., Kinoulton, Nottingham. Mr. Wyer died on Jan. 16th. Aged 83 years.

**The Late Mr. Albert Batt, M.R.C.V.S.**

The remains of Mr. Albert Batt, M.R.C.V.S., were laid to rest on Wednesday afternoon, 15th inst., at Backwell Churchyard amidst tokens of the deepest sorrow and respect. The late Mr. Batt was one of the oldest and most respected inhabitants of the district, and was well known throughout the whole of North Somerset as a skilful veterinary practitioner. He was of genial and kindly disposition, and often gave his advice and medicine free to the owners of animals who were in poor circumstances. His great object was to alleviate the sufferings of our dumb friends.

The chief mourners were Mrs. Albert Batt (widow), Mr. and Mrs. H. J. Batt, Mr. Arthur E. Batt, M.R.C.V.S., Isle of Wight; Mr. Lionel Batt, London; Mr. D. G. Williams, Hampton Wick; Mr. and Mrs. Walter Lewis, Mr. and Mrs. Lord, Sussex; Miss Mary Batt, and Mrs. Fanny Williams. Amongst those at the graveside were Mr. Edward Batt, M.R.C.V.S., London; Mr. George Bishop, M.R.C.V.S., Bristol; Mr. N. S. Norman, M.R.C.V.S. West Town.—*Bristol Times and Mirror*.

## CORRESPONDENCE.

### THE REGISTRATION COMMITTEE AND "ADVERTISEMENT."

Sir,

I was amused to receive last week a document from the Secretary of the R.C.V.S. drawing my attention to a "blotter" issued by a well-known firm of chemists, in which my name and address appeared as a reference, with regard to a certain preparation, in company with several other practitioners; said document demanded to know whether the firm had any authority to use my name.

Never having seen the advertisement in question, I communicated with the firm, and was informed that the advertisement had not been issued for some time, and was, in fact, out of print. Moreover it was only issued to members of the profession.

Now it would be interesting to inquire how the mere fact of having one's name and address in an announcement of the kind can be regarded as anything in the form of an advertisement; it may benefit the manufacturers, but it is certainly of no value to the individual whose name is attached to the advertisement. Indeed the practitioner would have good reason to object, if such announcements were distributed to the public, because his clients would ascertain the source from which he gets his supplies and would readily ascertain the prices charged.

As to giving a testimonial to a patent preparation, surely no practitioner, except one bereft of common sense, would do anything so foolish, as it would simply take money out of his pocket.

The learned individuals who set forth the edict, "Thou shalt not give a testimonial to any preparation, even though it be issued to the profession only," should also have added that the names of practitioners should not appear in connection with surgical instruments.

I gather from a reference to the Register R.C.V.S. that the Registration Committee is composed of all the members of the Council. This being so, I would ask these zealous advocates for professional purity, Why they permit the name of a member of Council to be associated with an advertisement in connection with certain instruments, which appears almost perennially in some of the veterinary periodicals? The latter are often read by the laity and the advertisement is then of some value. And if they will

amuse themselves by looking through the various drug and instrument catalogues they will find any amount of material on which to test their new bye-law.

It is truly said that "history repeats itself," and the present instance is another example of "Straining at the gnat and swallowing the camel," and also discovering a mare's nest. One member of the Council was a zealous advocate at one time for advertising and fought the Council successfully, when that august body brought forward an ancient advertisement as evidence against him. I wonder if he sits in judgment at the Registration Committee at present. It may be that the petty matters which engage the time of this Committee will shortly be magnified into grave offences. When the coffers of the Council are replenished by the guineas drawn from hard-working practitioners this body will be in the position to make whatever absurd bye-laws any member of it chooses to bring forward.

Probably inspectors will be appointed to see that the labels we issue are not likely to act as advertisements, also to put a stop to the giving of "tips" and Xmas gratuities to grooms and coachmen. Then they may go one better and make us give up the shoeing-forge. Surely such commercial attributes cannot be in accordance with the views of the "Pecksniffs" of the Council.

But it is likely that before such a Utopian stage is reached that practitioners will recognize the importance of having men with business ideas on the Council; men who are not "dignity mad" and who will see the necessity of setting their own house in order before attempting to teach ethics to their neighbours.

At present advertising in an indirect but very lucrative manner, is carried on with impunity, yet complaints with reference to such are permitted to "lie on the table," the smaller fry are attacked, but the chief offenders are unmolested.

Why do not the Registration Committee publish their deliberations fully, such as is done by the General Medical Council?

If they adopted this course the practitioner who is unjustly "hauled up" would obtain some satisfaction, as he could show up the hypocrisy of those who sit in judgment. But evidently this course would not suit the "Simon Pures" of the Council.—Yours, etc.,

E. WALLIS HOARE.

### ADVERTISING.

Sir,

The Royal College of Veterinary Surgeons for nearly seventy years has just justified its existence, but occasionally its action is inexplicable. The less need there is for reform the greater the activity is for pushing it to extremes. Since the College has reduced some of the abuses of its members, quacks have, and are, increasing; and they advertise, tout, and practise without let or hindrance. Is it because the present-day practitioner has become so scientific and too professional? But it would appear from the public press that not every practitioner, especially those in high places, even on the Council, has as yet fallen in with the general views and toed the line in the profession; for we occasionally read of interviews and criticisms, and a few often professionally vulgar puffs of friendly editors in the daily or weekly press. If the smaller fry in our ranks were to get a lift in the press, some jealous neighbour would report it to the Council who would summon them to appear before its stern Registration Committee and obtain from them an assurance they would not offend again. The greedy men of position seem to ignore all assurances and undertakings, but repeat their offences. Position often makes a man immune to the law which penalises or terrifies a poverty-stricken individual.

The Royal College of Veterinary Surgeons is a peculiar body: it lacks the sense of proportion and is inconsistent; some of its laws, charters, and bye-laws are illogical; and many of its rulings are arbitrary.

A man may bedeck his roof, facade, or lateral walls, or the archways, gateways, etc., of jobmasters, blacksmiths, publicans, chemists, etc., with numerous vulgar signboards or paintings without let or hindrance. The R.C.V.S. does not consider this is advertising, nor unprofessional nor un-

dignified. One may go several miles in a straight line and encounter numerous boards of one particular practitioner over as many gateways, etc., of various tradesmen. But it is disgraceful in a professional respect to put your name and address in your local directory! I wonder why the R.C.V.S. does not consider it disgraceful on the part of the practitioner allowing his name to appear in the list of veterinary surgeons in the expensive P.O. Directory! What harm is done to the profession or to one's neighbours if I pay a 1/- for the insertion of my name and address in the "professional callings" list in a local directory? All my neighbours can do the same, so they can then be on an equality with me. Is it not to the public interest that veterinary surgeons' names and addresses should appear in local directories of a populous district? Anybody requiring the aid of a veterinary surgeon and not knowing of one would naturally go to a local directory, and if one's name and address could not be found what use is the directory?

The Incorporated Law Society permits solicitors to insert their names and addresses and their special qualifications, such as Commissioner of Oaths, etc., in the local directory. Are we, as a profession, superior to the legal profession on matters of etiquette, learning, social position, etc.?

When a V.S. is required by a visitor to a large town for a dog, cat, or other animal, who does not know of one, probably he or she may enquire of the porter of the hotel, doctor, or chemist, who often recommends a quack or a stableman who knows all about the ailments of animals.

In conclusion, I do not see any valid reason for a veterinary surgeon not having his name and address in a directory containing the names of the inhabitants of his own district. I believe it is against the public interest for the R.C.V.S. to prevent veterinary surgeons inserting their names and addresses in a local directory. If veterinary surgeons were to ignore the rulings of the College on this matter I do not believe the College would cause their names to be removed, or if they enforced the rule the Privy Council would not uphold the College in its action. The matter is in the hands of the profession, but what applies to large town or seaside resorts does not apply to small districts containing only one veterinary surgeon.—Yours truly,

SCRUTATOR,

#### NATIONAL VETERINARY ASSOCIATION: APPEAL FOR SUPPORT.

Dear Sir,

I wish to draw the attention of the profession generally, and particularly those practising in the West of Scotland, to the necessity of now becoming members of the National Association, since its reconstitution, so as to embrace all local Societies. Our motto, *Vis unita fortior* should be sufficient reason for everyone joining in the movement, apart from the actual immediate benefits that they will obtain.

The re-arrangement dates from the 1st of January, 1913. The profession may join the National Association either direct for a fee of 10/6 per annum or through a local Society for a fee of 7/6.

According to the Register of Veterinary Surgeons for 1912 there are 135 graduates resident in Ayrshire, Dumbartonshire, Lanarkshire, and Renfrewshire, and in addition the West of Scotland V.M.A. draws members from other Midland and South-Western counties, yet the average attendance at our meetings is twelve members! We get an average of twenty annual subscriptions paid, but we send out fifty-five circulars for each meeting to veterinary surgeons who at one time or other attended our meetings, and are still kept on our membership list, though sadly in arrear with their subscriptions.

I understand this apathy is general throughout the country. Surely it is time petty jealousy and the other causes too numerous to mention were set aside, and we as veterinarians should, by becoming paying and active members, help to build up a National Veterinary Association worthy of the name to further our interests and protect our rights. All that our Society—in common with many others, demands of each member's time is an afternoon three times a year—not much for even an extra busy practitioner to spare!

The executive of the West of Scotland V.M.A. have decided to make their annual subscription 10/- (including the National one in this amount), with an entrance fee of 5/-. This entrance fee is not asked from old members re-joining, nor are arrears enforced.

Our annual meeting is to be held in the Religious Institution Rooms, Buchanan St., Glasgow, on Wednesday, the 29th January, at 3.30 p.m., when the office-bearers will be appointed for the year. Every veterinary surgeon will be welcomed, and members should endeavour to be present to make an enjoyable meeting, and give some little encouragement to our officials. Tea will be served in Daniel Brown, Ltd., St. Vincent St., after the meeting.

In conclusion, I will be pleased to hear from anyone intending to join the "National" through our Division.—Yours faithfully,

JAS. MACFARLANE, President,  
Glasgow and West of Scotland V.M.A.  
75 West Street, Glasgow.

#### TAPE WORM FOR STRING.

I administered a vermifuge to one of my greyhounds sappings, and he passed a tape worm of moderate length. For convenience for examination I placed it on the lock door of a canal opposite my yard. Being called away, I left it there. In the meantime the children came out of school, and a boy, in need of twine to play horses with, spotted it. During his manipulation he remarked "that it was the rottenest string he ever saw."

E. WARDROP,  
Outwell, Wisbech.

#### BOOK RECEIVED.

THE PRINCIPLES OF STOCK BREEDING, by James Wilson, demy 8vo. 146 pp. including index and 2 p. Publishers' advts., cloth lettered, 5/- net. Vinton & Company, Ltd., 8 Bream's Buildings, London, E.C.

#### Veterinary Societies Addresses.

##### BORDER COUNTIES V.M.S.

Pres: Mr. J. W. Hewson, M.R.C.V.S., Wigton  
Hon. Sec. (pro tem.): Mr. F. W. Garnett, M.R.C.V.S.,  
Dalegarth, Windermere  
Meetings, Second Friday of Feb., June, and October

##### GLASGOW V.M.S.

Pres. Principal McCall.  
Hon. Sec. Mr. J. Gibson, 16 Overdale Gdns, Langside, Glas

##### ROYAL VETERINARY COLLEGE M.A.

Pres: Dr. Lander, D.Sc.  
Hon. Sec: Mr. G. Gorton, M.R.C.V.S. Assist. Mr. T. J. Davis

##### ASSOCIATION OF VETERINARY OFFICERS OF HEALTH

Pres: Mr. J. G. Reynard, M.R.C.V.S., Perth  
Hon. Sec. & Treas. Mr. A. M. Trotter, M.R.C.V.S.,  
Moore Street, Abattoir, Glasgow.

##### NATIONAL VETERINARY BENEVOLENT & MUTUAL DEFENCE SOCIETY.

Pres: Mr. W. A. Taylor, F.R.C.V.S., Brick-st, Manchester  
Treas: Mr. J. B. Wolstenholme, F.R.C.V.S.,  
Quay-street, Manchester  
Hon. Sec: Mr. G. H. Locke, M.R.C.V.S.,  
Grosvenor Street, Oxford-st., Manchester

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#### COLONIAL SOCIETIES (continued next page)

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# THE VETERINARY RECORD

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## TWENTY-FIVE YEARS' PROGRESS.

An eminent veterinary authority, in an inaugural address at the opening of one of our schools at the beginning of this century, devoted much attention to the changes in our science and practice during the preceding hundred years. His remarks thereon were very interesting, but a review of a much shorter period, not exceeding the memories of many of us, might be made equally so. The last twenty-five years have brought startling changes into our everyday medicine and surgery, and to recount even a few may be suggestive.

During that period new drugs almost without number have been introduced. The value of most has been overstated, but some, such as adrenalin, are established as permanent additions to our resources. The induction of anæsthesia, again, was rare amongst us twenty-five years ago. At that time a few of us were just beginning to use cocaine, then recently introduced into surgery; but the numerous present substitutes for it were unknown. A few also used chloroform, but the popularisation of general anæsthesia in our work did not take place till the nineties. One of the most marked changes of the last quarter of a century is seen in the all but universal adoption of anæsthesia to-day.

Equally great changes have taken place in the treatment of some diseases. Perhaps the most striking concern milk fever; for the udder treatment initiated by Schmidt, empirical though it is, has deprived what was the most serious sporadic disease of cows of nearly all its gravity. And, if the last twenty-five years have seen great advances in our treatment, they have seen even greater ones in our diagnosis. The introduction of such tests as mallein and tuberculin, for instance, has revolutionised our manner of dealing with those diseases.

Many other points occur to us. Many previously unknown diseases have been identified, and some quite new fields of pathology have been opened up—we may cite the discovery and study of the piroplasmata as illustrating both assertions. Changes have taken place in our attitude towards disease; we pay more attention to hygiene, place less implicit reliance upon drugs, and are less apt to become slaves to routine methods, than was the case twenty-five years ago. A practitioner who qualified at that time, comparing his recollections of veterinary science and practice then with his knowledge of it to-day, will find ample food for reflection. One moral which can be deduced from that reflection may be baldly stated thus—How essential it is for every working practitioner to keep abreast with our professional progress, and how dreadfully "behind the times" it is possible for a man of scarcely middle age to be if he does not!

## MULTIPLICATION OF VETERINARY DIPLOMAS.

BY HENRY GRAY, M.R.C.V.S.

The Fellowship Degree Committee of the R.C.V.S. has resolved to recommend:—

"(1) That the regulations governing the Fellowship Diploma be revised, and that a Diploma be instituted in Veterinary Public Health;

(2) That a further Supplementary Charter be applied for for the purpose *inter alia* of carrying out the above recommendation."

From the discussion that followed on the matter one gleans that the College is apparently determined on granting a further diploma as soon as it has obtained the legal power to do so.

Personally I do not consider we require an additional diploma to those we already have. The Fellowship Diploma is not much sought after, and has not proved of any value to its holders unless they be in the army or are seeking a position of examiner for the membership of R.C.V.S.—it is not necessary for the Fellowship degree. Any improvement in the course of instruction or method of examination for the Fellowship without giving its holder some beneficial or material privilege or power would not induce men to go in for it more in the future than in the past. Its value, however, would greatly increase so that it should be sought after as a degree qualifying for a public service if it embodied the subject of Veterinary Public Health. For practitioners who wished to specialize in the study of a particular branch of veterinary medicine or surgery other than Public Veterinary Hygiene a Fellowship Diploma could embody the subject of the special study. I outlined this scheme in a paper on Veterinary Education, Ante and Post Graduate which I had the honour of presenting to the Buxton meeting (1905) of the National Veterinary Association. Before that time and since I have referred to the same subject. Prof. Harold Woodruff has since, also, on more than one occasion introduced and discussed the same subject. His and my own views are almost in agreement. His outspoken and replete paper appearing in *The Veterinary Record* of Jan. 4th, 1913, deserves serious consideration.

In my opinion the findings of the Committee on Public Veterinary Services will not solve the problem of practical veterinary education but only confuse the issue by allowing numerous men to enter our profession without a thorough knowledge of animals in health and in disease, which can only be obtained by being constantly in contact with living and dead animals in the cowshed, stable, sheepfold, piggery, field or slaughterhouse, rather

than by being almost always in an objectless lecture theatre. Rather than induce Bachelors or Doctors of Science without practical acquaintance of the domestic animals to enter our ranks, we had far better induce diplomated agriculturists and medical men whose knowledge should be comparatively of greater value than that of the former to enter our schools. Neither proposed scholarships nor other bribes will obtain for the Public Services the class of man it should require, although it may lead up to many soft jobs for a lot of mediocrities. As it is now, I firmly believe there are numerous young men already in the profession who are quite competent, or who could and would make themselves competent for the Public Veterinary Services if only a proper salary, security of tenure, and a pension suitable for a professional man, were forthcoming. Our men are good enough for South Africa, India and other of our possessions, where microbial diseases are more varied and more numerous, and they should be good enough for present positions in this country where the microbial diseases are less varied and fewer in frequency. We are becoming a bureaucratic country, destroying initiative and reducing energy to its minimum—everybody is seeking soft jobs but by losing his individual independence or freedom. But let us wait and see the result of the findings of that anomalous or unique Committee without veterinary representatives in its constitution—the Committee on Public Veterinary Services. Was this position due to the apathy or lack of initiative on the part of our Council? If so it is quite time it was displaced by a younger generation of men who possess more progressive ideas suitable for the age. This is an age for active youth rather than conservative senility, which is too often afraid to move. We really require a leader of the Fleming type.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### FURTHER EXPERIMENTS UPON JOHNE'S BACILLUS.

Messrs. F. W. Twort, M.R.C.S., L.R.C.P., and G. L. Y. Ingram, M.R.C.V.S., have recently published (*Centralbl. f. Bakteriologie, u. S.W.*) an account of their continued researches upon John's disease and its bacillus. It will be remembered that the same workers, in a paper published early last year (see *V.R.* of April 20, 1912, page 658), described media in which they had succeeded in cultivating John's bacillus, and also reported the successful inoculation of the disease into cattle and the preparation of vaccines. The essential constituent of their media consisted of the dead bodies of allied acid-fast bacilli, or various alcoholic, glycerine, or other extracts obtained from such bacilli. A good formula for such a medium is egg (75 c.c.), 0.85 per cent. NaCl (21 c.c.), glycerine (4 c.c.), and dried killed *Bacillus Phlei* (Timothy grass bacillus) one gramme. Their results have since been confirmed by Holth, working in Copenhagen. In their present paper they deal with a variety of questions mentioned in their

last one, viz. the nature of the essential substance in the allied acid-fast bacilli necessary for the growth of John's bacillus, the possibility of growing John's bacillus on the bovine type of tubercle bacillus as well as on the human type, the possibility of acclimatising John's bacillus to grow without the presence of the dead bodies or extracts of allied acid-fast bacilli, John's bacillus with special reference to the growth on the surface of fluid media, the possibility of communicating the disease to animals other than bovines, and vaccines with special reference to a reliable and specific diagnostic reagent. The details of the paper are highly interesting and in many directions suggestive, especially perhaps with regard to the possibility of acclimatising John's bacillus, and the transmission of the disease to animals other than cattle. In the latter connection it may be mentioned that the authors experimentally infected two young goats, one by intra-peritoneal and the other by intravenous inoculation of pure cultures. From this fact they conclude that the case of apparent John's disease observed by Stockman in a sheep was probably actually caused by John's bacillus. They have now experimentally inoculated two sheep, but the results are still undetermined.

At the end of the paper the authors summarise their conclusions as follows:—

(1) *Bacillus Phlei*, used in preparing media for growing John's bacillus, can be grown in such a manner as to contain very little of the substance on which the growth of John's bacillus depends. This "essential substance" forms only a small part of an alcoholic extract of *Bacillus Phlei*. John's bacillus will not grow on media containing the wax separated out from the extract nor on media containing the fatty acids.

(2) John's bacillus may grow slightly on media containing certain strains of tubercle bacilli having bovine characters, and it is probable that the "essential substance" which is present in the human type of tubercle bacillus may also be present to a slight extent in the bovine type, although the bovine type never makes an efficient medium.

(3) After growing outside the animal body for over a year one strain of John's bacillus has been acclimatised to grow slowly on glycerine liver broth without the presence of the dead bodies or extracts of other acid-fast bacilli.

(4) At the time of publication of our second paper only one strain of John's bacillus showed surface growth on fluid media containing extracts of other acid-fast bacilli. More recently several of the remaining strains have commenced to show film growth on such media.

(5) John's bacillus can produce the disease in goats as well as in bovines, and it is probable that other horned animals can take the infection.

(6) A diagnostic vaccine for John's disease prepared by growing the bacillus in a fluid medium containing the dead bodies or extracts of the human tubercle bacillus is not specific but, as we pointed out in a former paper, will also give a reaction with tubercular animals. If *Bacillus Phlei* is used in place of the tubercle bacillus in preparing the



medium, Johne's bacillus will grow better, and a diagnostic vaccine can be obtained which is both efficient and sufficiently specific for practical purposes. Moreover, Johne's bacillus has recently started to grow on ordinary glycerine liver broth without the presence of other acid-fast bacilli, and a comparatively weak vaccine prepared from the culture has produced a definite rise of temperature in a bovine suffering from Johne's disease.

In future it should be possible to prepare a sufficiently strong diagnostic vaccine by growing the bacillus on glycerine liver broth or on glycerine beef broth as is done in the preparation of Koch's tuberculin.

In a positive reaction the rise of temperature usually occurs between the third and ninth hour and may be accompanied by profuse diarrhoea.

#### COLLOIDAL SULPHUR (COLLOTHIOL).

Sulphur, in its metallic state, is of constant but limited use in therapeutics. It may be either given orally or applied externally, but its employment by hypodermic injection is as yet hardly realised.

Duchamel, L. Lépinay, and E. Lépinay have made a series of observations upon the action of Colloidal sulphur (also called Collothiol), and report (*Revue de Pathologie Comparée*) their results.

Colloidal sulphur exists in various degrees of concentration. One variety contains 50 centigrammes and another 4 grammes of sulphur in the litre. Both these varieties contain the sulphur in the pure condition, and the solution is isotonic, sterile, and injectable. The injection does not cause pain, no inflammatory reaction is produced, and nodules are never observed.

The authors have experimented with regard to the toxicity of the drug upon the rabbit. In rabbits having an average weight of 2 kilogrammes (nearly 4½ lb.), one may daily inject 5 c.c. of the weaker solution (50 centigrammes to the litre) intravenously for twenty consecutive days without observing any toxic symptom. One rabbit received a series of twenty-seven injections, repeated daily, of the stronger solution (4 grammes in the litre). This animal commenced to waste, and then showed paralysis of the posterior part of the body.

The experiments were then repeated upon dogs, both large and small animals being used. In no case was any symptom of intoxication observed, though some dogs received altogether 60 c.c. intravenously.

The intravenous injections were made in the external saphena vein, and the hypodermic injections upon the external aspect of the thigh. No induration in the region of the puncture appeared after the injections, and no alteration or thrombosis of the saphena vein was produced. At the tenth injection the veins were as elastic and as permeable as at the first. After the injection the dogs showed a slight elevation of temperature, varying from fractions of a degree to one degree (Centigrade), but this hyperthermia was only transient.

The authors have also tested the drug therapeutically, and draw the following conclusions from their first attempts at treatment with it.

In cases of eczema with or without ulceration, in pruritis, and in erythema, injections of colloidal sulphur have always produced a well-marked amelioration. The majority of the patients have been cured by this as the sole treatment.

In cases of parasitic skin disease, whether due to demodices or sarcoptes, the intravenous or hypodermic injections are not sufficient *alone*. External treatment is also necessary, and when the injections were combined with this they manifestly hastened the cicatrization of the lesions and stimulated the growth of the hair.

Therefore, in acute or chronic dermatoses, whether provoked by external circumstances or governed by a diathetic or constitutional condition, colloidal sulphur ameliorates or cures the lesions—perhaps by modifying the diathetic condition, perhaps by local action upon the eliminative functions of the skin.

The authors advise that the treatment should comprise at least five injections, one injection being given every two or three days. In serious cases, as many as ten injections may be given; but at the end of that time, if a complete recovery has not been obtained, it is necessary to wait for a few days before commencing a fresh series of injections. In this manner absolutely all danger of intoxication or accumulation is avoided.—(*Annales de Méd. Vét.*)

W. R. C.

(The following are also given as suitable doses: 2 c.c. for small dogs, 3 to 4 c.c. for medium sized, and 5 c.c. for large ones; but it is not clear whether these quantities refer to the stronger or weaker of the two solutions. Neither is the firm preparing this injectable solution of sulphur given.—*Transl.*)

#### VICTORIA VETERINARY BENEVOLENT FUND

The quarterly meeting of Council was held at 10 Red Lion Square, London, on Thursday, January 9th at 5 o'clock. Present: Messrs. W. Freeman Barrett, President, in the chair: J. Dunstan, Hugh A. MacCormack, G. A. Banham, S. Slocock, F. Hobday, H. Sumner, W. Burt, and W. Shipley, Secretary.

The minutes of the last meeting as published in *The Veterinary Record* were adopted.

The SECRETARY then read the following report:

Gentlemen,—As you are aware, owing to the alteration in the ending of our financial year, passed at the meeting in Dublin, we have only nine months to deal with. I should also point out that as subscriptions are due on January 1st of each year, I have had only a few arrears of old subscriptions. The remainder of our income and expenditure has been from new subscribers, and interest from invested funds *plus* the accrued balance of last year.

Since the publication of our annual balance sheet we have received:

Interest and dividends	£67	0	4
Outstanding subscriptions	5	13	6
New subscriptions	59	5	0
New donations	64	12	0
One Life Member	10	10	0

These two latter sums must be invested (Rule 4) and are not available for present use.

We have increased the grants to our recipients in the

cases of Mrs. Jones, Mrs. Gibson, and Mrs. Barford, to 10/- per week. We also increased the grant to a similar sum to Mr. Grinton, who unfortunately lived only a short time to enjoy it.

Fresh grants of 10/- per week were made to Miss Horton towards the education of her brother's children, and 5/- per week to Mrs. Porter.

The grants to those entitled to Old Age Pensions have been re-organised in order that they should receive the full benefit of these pensions. Through the liberality of friends at Xmastide, each of these has, through the authority of the Finance Committee, had little necessities provided. I have been able to get friends who who know of the condition of these poor old souls all over 83 years, to administer a present of £2 each to them for absolute necessities. We are indebted to these gentlemen for their trouble and kindness in carrying out this work. I feel sure you will wish me to thank them.

I am unable to present the annual balance sheet audited, but I had a rough draft prepared. Our total income for the past nine months has been £135 10s. 6d. Our expenditure has been £205 3s. 1d. in monthly grants and expenses, leaving a deficiency of £69 12s. 7d. which has been met by our accumulated surplus on income account, thereby reducing that figure from £103 15s. 9d. to £34 3s. 2d.

This is the only amount we have to carry on with until the new subscriptions come in. Now that we have got over the trouble of a nine months financial year, we should be able to make more satisfactory progress in our estimates.

I would suggest that we increase our present grants to all the widows in receipt of relief to a sum of 10/- per week. I feel sure you will agree with me that no one of them should have less, and that in cases where there are children dependent we should, in the near future, endeavour to make a grant of so much per child. At present, however, this must be for consideration only.

For the future year I estimate our expenditure at £350, made up of grants to our present recipients: 9 at 10/- per week, £234, 2 fresh applicants, both of whom I strongly recommend to you, £52. This makes a sum of £286. Old Age Pensioners £22 16s., and Incidental expenses, postages, etc., at £41 4s.

I estimate our Income on the supposition that all our old subscribers continue, I have every reason to think they will, for I feel sure you have demonstrated to them the urgent necessity to support our Fund, and also I think that now the need is shown, many will seriously consider if they should not increase their present subscription; I anticipate as the result of our work a further increase in the subscribers. If these happy conditions occur we should have an Income of £345 made up of Annual Subscriptions £248 16s.; Interest and Dividends £96 7s. 6d.; Plus increase of old subscriptions and new subscribers to meet deficiency.

I most urgently appeal to all members of the Council, and subscribers to our Fund to do their utmost to bring before the members of the profession the work we are doing, in order that we may induce them to help and increase our efficiency.

May I suggest that we increase the grants to Mrs. Barcham, Mrs. Muir, and Mrs. Porter to 10/- per week each. There are letters to confirm my opinion that these are deserving our support. Applications for relief have been received from Mrs. Rod. Howard and Mrs. Irvin Roberts. I have letters and recommendations for your consideration, and strongly recommend that a similar grant be made in each of these cases.

Letters of gratitude have been received from all our old recipients. Thanks to the consideration of the Finance Committee our cheques were posted on the 23rd December instead of 28th December, in order that the grant might be available for Xmas. I have made

frequent inquiries in all old cases, and am assured that in each case our grant is urgently required.

Four votes are available for the London Orphanage Asylum. As we have no one to present I would suggest that if any member of the profession is interested he should apply to me at once, failing that I will return to the Secretary for distribution with a request for favourable consideration if we have a case in the future.

I will read you correspondence from the Central Veterinary Medical Society in Ireland and hope you will decide to appoint the Advisory Committee selected. Perhaps in the near future we can have similar sub-Committees in Scotland and Wales.

I think we should endeavour to increase the too slow but steady work we are doing. I am aware that there are many sad cases of distress that do not come to our notice, and it is only by the assistance of the Veterinary Press, to whom I am personally much indebted for valuable help, that we can bring to every member of the Profession the urgency of our appeal.

Unfortunately we are at present unable to let the wives and children of the members of the profession know of our existence; could we do so, much suffering and distress could be relieved.

It is to be hoped members of the Fund will remit their subscriptions at their earliest opportunity. By doing this some expense in the way of postages may be saved.

Let me take this opportunity to wish all prosperity to the members and to the Fund for the New Year.

It was resolved to confirm the action of the Finance Committee in making a Xmas Grant to the old age pensioners and the Secretary was requested to write and thank the friends who had administered the money.

It was proposed by Mr. Sumner, and seconded by Mr. Slocock, that the grant to Mrs. Barcham be increased to 10/- per week. In the cases of Mrs. Muir and Mrs. Porter the grants to be continued as before; further inquiries to be made.

In fresh applications for relief, in one case it was considered desirable to obtain a doctor's report as to the inability to work when, if satisfactory, a grant not exceeding 10/- per week be made.

In another case, as a grant of 5/- per week had already been made by the Benevolent and Defence Society, a grant of 5/- per week was ordered, on the proposition of Mr. Sumner, and seconded by Mr. Slocock. Further enquiries to be continued.

The Secretary was instructed to return the voting papers to the London Orphanage Asylum, and request that this action should be considered in case of an application by the Council for support in some future case on behalf of the Fund.

Correspondence was read from the Central Veterinary Medical Society of Ireland referring to the appointment of a Sub-Committee in Ireland, "for the consideration and recommendation of applications for relief and the furtherance of the objects of the fund in Ireland.

The Council felt grateful for the help and consideration of that Society, and were pleased to appoint on their recommendation Messrs. J. A. Thompson, Lurgan; P. J. Howard, Ennis; J. F. Healy, Middleton; P. D. Reavy, Bundoran; and Prof. O'Connor, Dublin. The Secretary was instructed to send all necessary papers and the particulars of these cases of relief at present in that country. The Council viewed with great pleasure the increase of support received from Ireland, and hope eventually to have a similar Committee of recommendation appointed to further the cause of the Fund.

#### NEW SUBSCRIBERS, SEPT. TO DEC. 1912.

	£	s.	d.
Wilkinson, H. W., Dublin	10	6	
Runciman, Thos., Ely	10	6	
Reavy, P. D., Bundoran, Ireland	10	6	
Atkinson, T. S., Douglas, I.O.M.	1	1	0

Johnston, J. E., Belfast	10	6
Morphew, H., Epsom	1	1 0
Coe, J. W., Stoke-on-Trent	10	6
Edmondson, W., Harrogate	10	6
Tipper, L. C., Moseley, Birmingham	10	6
Walpole, H., Whixley, Yorks.	10	6
Hare, J. B. A., Navan, Co. Meath	11	0
Winter, E. C., Limerick	10	6
North of Ireland V.M.A.	2	2 0
Thompson, J. A., Lurgan, Ireland	10	6
Edwards, E. R., Board of Agriculture	10	6
<i>Donations.</i>		
Anon, B. S., London	6	0
Ebbitt, R., Oldcastle, Ireland	10	0
Spreull, re Scottish C.V.M.S.	10	6
Anon.	10	6
Begg, Hugh, Hamilton	10	6
Whicher, A., Bexhill-on-Sea	10	0
Grigson, Geo., Downham Market	1	1 0
West, E. A., London	2	2 0
Caton, H. W.	2	2 0
<i>Life Member—</i>		
Young, Wm. Jackson, Edinburgh	10	10 0

#### SOUTH EASTERN VETERINARY ASSOCIATION.

The first annual meeting was held at the County Hotel, Canterbury, on Wednesday, January 15th. Prior to the general meeting of members a meeting of veterinary inspectors was held, at which there were present: Messrs. James Crowhurst (F), Canterbury, President; W. H. Crowhurst (F), Canterbury; Ernest Morgan, Faversham; T. F. Hogben, Ash; H. P. Hogben, Folkestone; E. Lyne Dixon, Margate; George Fordham, Ashford; and Theo. C. Toope, Dover, Hon. Sec. and Treas.

The Hon. Sec. said they were aware that a committee was appointed to reconsider the question of mileage granted by the Kent County Council, it being considered that the fee was not quite reasonable, inasmuch as the County Council had reduced it instead of increasing it. The Committee requested him to ask the Kent County Council to improve and alter the scale of fees, and he wrote the following letter on Nov. 11th, in accordance with these instructions:—

34 High Street Dover, Nov. 11.

#### *Re Veterinary Inspectors' Fees.*

H. B. Prosser, Esq.

Dear Sir,—The Committee of the South Eastern Veterinary Association met on Wednesday last to discuss the amended scale of fees and allowances to Veterinary Inspectors of the County Council, and they considered it fairly satisfactory, with one marked exception, viz., the *mileage allowance*, which they consider entirely unsatisfactory in its present form. They wish me to point out to the Committee of the Kent County Council that instead of giving the increased fee asked for, viz., 1/- per mile *one way*, they have actually reduced the mileage allowance from "9d. to 4d." in the case of a three mile journey, and it is not until a journey of eight miles out has been accomplished that the allowance becomes equal to the old scale, and the vast majority of journeys are much shorter than this. The use of the word "*nil*" effects this.

We cannot think this can be the intention of the Committee. We feel this explanation will be sufficient for its rectification, and that on their reconsideration of the matter we shall be allowed the terms we ask without exemption clause for the first two miles.—Yours faithfully,

THEO. C. TOOPE, Hon. Sec.

Sessions House, Maidstone. Nov. 12.

#### *Veterinary Inspectors' Fees.*

Dear Sir,—Your application of the 11th November was considered by the Kent Local Authority at its meeting yesterday, but they could not see their way to grant your Association's application for one shilling per mile one way irrespective of distance travelled. They, however, decided that the travelling expenses otherwise than by railway should be one shilling per mile one way but that no allowance would be made for travelling expenses when the place visited is within two miles of the residence or place of business of the Inspector.

The scale (of which I enclose a copy) has been amended accordingly, and prints will be forwarded to each of the County Veterinary Inspectors.—Yours faithfully,

W. B. PROSSER,

Clerk of the Kent County Council.

Theo. C. Toope, Esq., M.R.C.V.S.

So far as they knew, that matter had been put on a more or less satisfactory footing. Further, he might say that prior to last July he was asked by a large number of veterinary societies to introduce that matter to the various Counties through the medium of the National Council, the veterinary inspectors in some counties being in a very bad way and some in a worse position than they themselves were in Kent. He attended, and got a resolution through, the National Society asking him to bring the matter forward at the first meeting of the Council, which he did some little while ago. Their President (Mr. Crowhurst) and himself attended as their delegates, and he was ordered to make full enquiry into the condition of the veterinary inspection throughout the kingdom. Having made those enquiries a Council meeting was called, and the subject was brought forward and a draft scheme was prepared. A Committee was appointed by the Council and their President (Mr. Crowhurst) was elected Chairman, and he (Mr. Toope) was appointed secretary. The Committee met and discussed the list of fees in use in the various counties, and they drew up a list of fees that the delegates from the various counties considered the right and proper thing to ask for. It varied a little from their own, but it practically amounted to what they had asked from their own County Council, and which they did not get quite, but with which they were more or less satisfied.

He was asked to send a circular letter to the secretaries and presidents of the Veterinary Associations and the following was a copy of the letter he sent:—

National Veterinary Association.

34 High Street, Dover, Nov. 26.

#### *Re Veterinary Inspectors' Fees.*

Dear Sir,—At a meeting of Council of the N.V.A. held in London on the 23rd inst., a resolution moved by me at the last general meeting in Manchester, on this subject, was considered. A Sub-Committee was formed, with Mr. James Crowhurst, F.R.C.V.S., as its Chairman, and myself as Secretary, to fully enquire into the matter and report thereon to the Council, with a view to its being in a position to assist in obtaining commensurate remuneration for services rendered under the Contagious Diseases (Animals) Acts *when and where* such assistance may be required. In order to effectually do this it is necessary that the fees allowed by each County should be tabulated for comparison, and the Council have thought fit to take the revised scale of the Kent County Council as a satisfactory basis for that purpose. You will render great assistance to the Committee by filling up the detachable form and forwarding it to me on or before December 4th next.

The Sub-Committee meet at the Royal College of Veterinary Surgeons, 20 Red Lion Square, on the 11th

December, at 3.30 p.m., to further consider the matter and as time is necessary to tabulate, print, and circulate the replies received, may I ask your prompt assistance. —Yours faithfully,

THEO. C. TOOPE. M.R.C.V.S.

That showed how far they had gone. On the previous Wednesday the full Council met and accepted with slight amendment the list of fees as drafted by the National Society's sub-committee. One slight alteration suggested was that in all cases where a microscopical investigation was necessary a fee of 10/6 should be allowed. That was inserted in order to meet with any disease that might crop up in future such as cases of abortion, where microscopical investigation was necessary. So far that was the history of the movement.

They next had to consider their own scale of fees, and he had received letters from Mr. Guildford, of Lympne, Mr. Hogben, Folkestone, with regard to the ordinary visit which did not seem to be quite understood.

Mr. Hogben wrote to him on several occasions on the same question, but he (Mr. Toope) thought he had made the point pretty clear now.

He had received a letter, too, from Mr. Fordham, but he did not think he need read it because it was more complimentary to him than it should have been. (Laughter.) What had been done was not a personal matter. It was not work done by the Secretary but work done by the Society.

The questions they had to consider were very few. The first matter to deal with was as to the conditions about charging 5/0 allowance for market inspection.

The PRESIDENT said the committee appointed by the National Society paid him the compliment of asking him to take the chair. He explained to the meeting that their first appeal to the Kent County Council was to make a charge of so much per day for market inspection, as Mr. Fordham, himself, and others felt it was somewhat of a tax on one's conscience to put down so much per hour for so many hours when he knew he could not afford to give his time at 2/6 an hour for the actual time employed, in fact he made it known that they were charging for more hours than they actually put in. To avoid that unpleasantness they wanted to be paid so much for a half day's work, and so much for a day. Taking the day as eight hours, and the half day as four hours, the National thought it right they should receive one guinea for a half day and two guineas for a day for market inspection, as that would do away with charging so much per hour like a labourer who was paid by the hour. The 5/0, he thought, they thrashed out was not to be charged for market inspection, seeing that they charged their time from the time they left their place of business and if they received the 5/0 they would be receiving double. The charge of 5/0 applied when they had to go to a case of glanders, for instance, when they earned nothing until they got to the premises where the outbreak was.

Mr. H. P. HOGBEN asked whether the 5/0 was to be charged in addition to the fee of £3 3s.

The PRESIDENT: Yes, if you have to drive four or five miles.

Mr. HOGBEN: I did not know whether the £3 3s. was inclusive.

The SECRETARY said the 5/0 represented pay for time on the journey and not applied knowledge.

Mr. E. MORGAN asked when the charge of one guinea was to be made for a special visit ordered by the local authority, as he thought every visit was a special one.

The SECRETARY said it was generally understood that that fee was intended to cover a visit when there was some matter of dispute between an owner and an inspector. That was the feeling at the National as to the fee of one guinea.

Mr. H. P. HOGBEN asked which fee would apply in the case of mange.

The PRESIDENT replied that that was a separate matter.

Mr. E. LYNE DIXSON said he understood that if they charged a fee of £3 3s. in the case of mange they would not charge the 5/0 as well as mileage.

The PRESIDENT said he wanted them to distinguish between diseases that were dangerous. Mr. Shipley on the Council contended that they should have the same fee for mange as for glanders, but he (Mr. Crowhurst) pointed out that the danger was very different, and Mr. Shipley agreed and withdrew his contention.

Mr. FORDHAM said he did not think they could charge the same fee for attending cases of mange as they did for glanders.

The PRESIDENT agreed and said it would be seen that there was not a very great deal of difference between the scale of fees recommended from the National and theirs. He did not think they wished to approach their County Council again, but they had best wait until the National had brought their list to the general meeting. They in Kent did not want to have to do all the hard work, and they did not want their County Council to think they wanted to press them unduly. He believed if the meeting fell in with what had been done they stood on good terms with the County Council. He had seen the Chairman of the County Council committee since, and he was delighted to think he had done so much for the veterinary profession.

The SECRETARY read a telegram from Mr. Guildford stating he could not be present.

Mr. H. P. HOGBEN referred to the certificates given at market, and asked whether they were expected to charge a shilling per certificate.

The SECRETARY read an extract from a letter from Mr. Howie, of Aberdeen:—

"I think you score over us in the matter of fees in every particular but one, viz. the fee for clerical work, Reports, Licenses, etc. You get 1/- where we get 2/6 each. This is not a small matter; last week I granted 5/-; this makes up for some of the deficiencies in our scale."

Mr. W. H. CROWHURST said in the city of Canterbury they were formerly paid a shilling for signing certificates, but it had been knocked off, and the matter had been put in the hands of the police.

Mr. FORDHAM said they had nothing to do with certificates, but they could not expect to be paid a shilling for each certificate and likewise receive their £2, which worked out at 5/- an hour.

Mr. T. F. HOGBEN agreed with Mr. Fordham.

Mr. FORDHAM said he could not complete his market inspection in four hours as the stock did not come in fast enough. Often stock kept dribbling in when he thought he had done. He charged for eight hours, his market being the third largest pig market in England.

The SECRETARY said the next business was to draft a reply to the Kent County Council.

Mr. DIXSON said he thought the Kent County Council had met them in a very generous manner and he thought they ought to show their appreciation of what they had done. It was with very much pleasure that he proposed a letter be sent to the County Council thanking them for the kind consideration they had given them as a deputation when considering their requests, and stating that they fully appreciated all they had done for them.

The SECRETARY said he thought they might point out in the letter that the County Council's action had been brought before the Council of the National Association, and that the National Council had accepted the Kent list of fees as a basis for reconstructing the list of fees paid to veterinary inspectors throughout the country.

Mr. DIXSON agreed that this should be done.

Mr. H. P. HOGBEN asked whether it was worth while to send a fresh application to the County Council.

The PRESIDENT said the National Society would consider the question of fees, as would also other associations, and if they found they had come to a unanimous conclusion they could, if necessary, make a further application to the Kent County Council, who he did not think would hesitate to put them on the same terms as other counties, but the Kent County Council had met them generously, and he did not think they should go further in the matter at the present moment.

Mr. T. F. HOGBEN seconded Mr. Dixon's proposition.

Mr. DIXON said whatever was done in the future would not interfere with what the County Council had already done. They thanked them for what they had done with a hope for favours to come.

The SECRETARY suggested he should send to the Kent County Council a copy of the new scale of fees prepared by the National Society. This was agreed to.

#### GENERAL MEETING.

The general meeting of members followed, when there were present Mr. James Crowhurst, Canterbury, President; Prof. Wooldridge, London; Messrs. J. B. Martin Stood; Elmer Ebbetts, Rochester; George Fordham, Ashford; T. Hibbard, Gillingham; E. Lyne Dixon, Margate; G. W. Dunkin, W. H. Crowhurst, Major W. B. Edwards, A.V.S., Canterbury; J. M. Richardson, Deal; H. P. Hogben, Folkestone; T. F. Hogben, Ash; E. Morgan, Faversham; and Theo. C. Toope, Dover, Hon. Sec. and Treasurer.

Twenty-six letters of apology for non-attendance were also received, and nineteen telegrams.

The minutes of the last meeting, which were taken as read, were adopted.

Messrs. CHARLES MORGAN, of Nonington, and F. C. GOLDEN, of Folkestone, were elected members of the Association, on the proposition of the Hon. Sec., seconded by Mr. T. F. Hogben.

The PRESIDENT said it was most important that each one of them should try to induce every member of the profession round about to belong to that Society, because as they knew union is strength. They could do more by numbers than they could individually. They knew they could do little individually, but it had been evidenced by the deputation that went to Maidstone that united they could accomplish a great deal for the profession.

The SECRETARY read a letter from Mr. Charles Roberts regretting his inability to attend in consequence of the serious illness of his father.

The PRESIDENT said as soon as he heard that Mr. Roberts was ill he wrote a letter expressing the regret of the members of the Association, and the hope that he would have a speedy recovery. (Hear, hear.) As they all knew, Mr. Roberts had been of considerable help to their Association and they all appreciated his labours. (App.) He was one of the deputation that went Maidstone and he had the great satisfaction of knowing that they accomplished so much.

The HON. SEC. announced that the Committee duly appointed at the last meeting met at the County Hotel, Canterbury, on Nov. 6th, for the purpose of considering the question of fees received from insurance companies for the inspection of animals about to be insured. The members of the Committee present were Messrs. James Crowhurst, T. F. Hogben, W. H. Crowhurst, E. Lyne Dixon, T. Hibbard, and Richard Roberts, and himself. They thoroughly discussed the question of insurance fees and drew up a scale that they thought more or less adequate to their requirements, as follows:

"Proposed scale of fees to veterinary surgeons for services rendered to Insurance Companies, advocated by the South Eastern Veterinary Association.

For inspection and report at veterinary surgeons' establishment:—

Horses under the value of £20	...	5s. 0d.
Horses valued from £20 to £35	...	7s. 6d.
" " £35 to £50	...	10s. 6d.
" " £50 to £75	...	15s. 0d.
" " £75 upward	...	21s. 0s.
Cattle per head up to 3 animals	...	5s. 0d.
Cattle after the first 3 animals	...	2s. 6d.
Post-mortem examinations and report	...	21s. 0d.
Special report on accident, illness, death,	...	10s. 6d.

For visits to owners' establishment, mileage, at the rate of one shilling per mile (one way) to be charged in addition to the above fees.

It is proposed to bring the above scale into operation as early as possible in the coming year."

His instructions were to submit that scale of fees to the various Veterinary Medical Societies. This he had done, and had received replies from a number of them. The following societies have sent approving of the movement, and most of them of the suggested list of fees:—The Royal Counties, Central, Lincolnshire, Southern Counties, Durham and North Yorkshire, Midland, Yorkshire, North of Ireland, and the Veterinary Medical Association of Ireland. That was a total of nine altogether. He had received replies from nearly every other Society stating that they were bringing the matter before their next meeting. Some of the replies were very interesting. One or two had stated they did not quite agree with the scale, but agreed entirely with the principle. He had explained to them that the list had been drawn up as a basis and that they did not necessarily adhere to it as final. The Veterinary Medical Association of Ireland passed a resolution to the effect "That the action of the South Eastern Veterinary Association be approved by the Veterinary Medical Association of Ireland who promise their full support." They knew with what success they had dealt with the veterinary inspectors' fees, and he believed by adopting a somewhat strong position they would be equally successful with regard to the insurance companies' fees. In order to put the matter in order for discussion he begged to propose that the scale prepared by the Committee specially appointed for the purpose be adopted.

Mr. T. HIBBARD seconded.

The PRESIDENT said they attended the National in London, discussing those fees, and they found the general tenour was in agreement with them with some slight variation of opinion, which of course there always would be, but he took it that on the whole they were in accord. If the National suggested any alteration he had no doubt the South Eastern Association would fall into line because he looked upon the National as the most important thing before the whole profession, and if they gave it their support they could make it a great power.

There was some discussion regarding the acceptance of agencies to insurance companies by members of the veterinary profession, and some felt strongly that they should not accept agencies. Of course in that matter they must show a little latitude—it was a matter for each member to deal with personally. It must rest with themselves. Taken on the general principle the National were in accord with the scale they had drawn up.

He received a letter from an insurance company a few days previously offering him 3/0 to go five miles. (Laughter.) He had not answered it, but knowing what he felt about the matter the company no doubt felt great pleasure in sending him the letter to see whether he took the bait or not. The next time he received a letter of that kind he should send them a copy of the scale their Society had adopted. At the National he told them that one man had refused to accept the small fee offered, and

a speaker said he had seen father and son together earning that fee of 3/6. He (Mr. Crowhurst) told the Society he thought they were well employed indeed if anyone thought a professional man was not worth more than that, and that he would sooner employ his time elsewhere than go five or six miles to earn 3/6.

Mr. FORDHAM said he had a similar application from an insurance company offering him 3/0 to go about seven miles to inspect a horse and a pony. He wrote back refusing the offer. He thought such an offer was a disgrace to the veterinary profession. The Company wrote again and offered him 8/6 and as the owner of the horse and pony happened to be a client of his, and he knew he wished him to inspect the animals, he went. He had heard nothing from the Company since. They were not all very prompt in paying.

The PRESIDENT said a short time previously he had an application from a client to examine a horse six miles away. His client said the Company was sure he (Mr. Crowhurst) would not do it and they left the matter with him, and asked him to pay the fee. They rang him up on the telephone and asked him what his fee would be and he said it would be half-a-guinea, which fee he was paid.

Mr. MARTIN said the insurance companies would have to raise their premiums. Of course the companies wanted to undertake the insurance as cheap as they could, as they wanted to do as much business as they could, but he supported the suggested list of fees. As everybody else was on strike and he thought they had better strike. (Laughter.) Unless they struck they would get no better pay. If the profession enforced the suggested scale of fees the companies would have to raise their premiums, but they would get the money back from those owners who wished to insure their animals.

Mr. FORDHAM agreed that the insurance companies wished to do their business as cheaply as they could, but he had mentioned before how much the companies paid their agents in comparison to the little they paid veterinary surgeons for making the inspections.

Mr. DIXON said a few days previously he had a letter from an insurance company asking him to examine a horse. He had done their work at their fees in the past but he wrote the company that he could not make the examination at the fee suggested, and enclosed a copy of the proposed scale of fees. The Company replied that the fees were absolutely out of the question, and that they either must charge more premium for insured animals or the man insuring an animal must pay the fee himself. There was no doubt if veterinary surgeons stood together they would get what they wanted, but while they continued to take the fees the companies would naturally stand out.

The PRESIDENT said he was sure if they stood together shoulder to shoulder they would gain their point. He hoped all their members would bind themselves together and stand by that scale of fees or come forward and express dissent with it at the time. Let them know who were against it.

Up to the present the year had been one of great pleasure to him, because they had been in accord with one another over the fees they had brought forward. They had every reason to be most thankful for being able to accomplish what they had. It was a pleasure to pick up the veterinary papers and to read of the credit that was given to that Association for what they had been able to accomplish throughout the year. He was sure it had been a great pleasure to each one of them, and he knew it had been a great source of satisfaction to Mr. Roberts, who had helped them so much to carry through their work.

Mr. HIBBARD said they were in the position of the doctors under the Insurance Act in that matter. They had the insurance companies dictating what fees they

were to receive in the same way as at present the doctors were being dictated to by Mr. L. George. He did not think anybody had a right to dictate to them what fees they were to charge, and that if they were not satisfied they should go without or get someone else cheaper. It had been suggested, and he thought a minimum charge of 5/0 for the examination of a horse was quite little enough, but it was fairly reasonable. They might depend, as Mr. Martin had said, that if the insurance companies found the veterinary surgeons would not examine a horse for less than 5/0 that they would put an extra premium on their clients, who were the men who would ultimately have to pay.

Prof. WOOLDRIDGE said he was pleased to see that that scheme had been taken up as it had. He was in accord with it. As far as he was concerned the fees paid to him by insurance companies were all that could be desired, but he had not had much of the routine work to do. Questions had been submitted to him and he had been paid reasonable fees, but he wished to sound no personal note in anything he said on that question. As was stated in the reply sent to Mr. Dixon, if the fees were revised the insurance companies would have to adopt one of two things, either raise their premiums, or in their terms insist on the insurer himself paying the fee for the veterinary inspection. He should think from the point of view of the companies the latter suggestion would be the best mode of procedure, because they would not appear to be receiving more money than they actually did.

He did not think that at the National there was much said against veterinary surgeons acting as agents to insurance companies. What was said particularly was with regard to the different proportions paid to agents and to professional men, the agents, for purely clerical work, receive six or seven times as much as the veterinary surgeons receive for professional services. The professional man ought to get at least as much as the agent who did only clerical work. The suggested scale was very reasonable, but he thought one item might be re-considered. That was the examination of cattle. The suggested fee for inspection of cattle per head up to three animals was 5/0, but he did not know whether that was really fair. It meant that if a man had three cows on the same premises that they were going to charge him 15/0. He thought it would be better where there were a number of animals on the same premises to make the fee 5/0 for the first and 2/6 for each of the others. He thought they were asking rather a lot in suggesting a fee of 5/0 for each animal.

The PRESIDENT said the animals might be valuable Shorthorns.

Prof. WOOLDRIDGE said in that case they should come under a different heading.

Mr. MARTIN said they might have to inspect fifty valuable dairy cattle.

Prof. WOOLDRIDGE said they might put the fee for inspecting pedigree cattle according to valuation. He would not move a resolution, but he suggested it in order to feel the pulse of the meeting.

Mr. MARTIN said the insurance companies valued the veterinary surgeons' services just as they liked.

Mr. G. W. DUNKIN said recently he was asked to examine some milk cows for insurance belonging to a client. He met the agent of the company at the place, and after he had examined the cattle the premium was discussed at length between the owner and the agent. After a lot of discussion a premium of insurance was arrived at under which it would nearly have paid the owner to have lost one cow a year than be out of pocket on the premium, and not insure. The company decided to issue him another policy. It was a floating policy the insurance on the twenty-five cows being £5 a year. The man had to lose one cow at his own expense and the company paid for the others lost. Their fees accord-



ing to the present scale for cattle would be 5/0 per head for the first three, that would leave twenty-two at 2/6 each, which was £3 10s. Then the Company paid the agent 12 per cent., bringing the fees they had to pay up to £4 1s., which would leave something under £1 for the insurance company. He agreed that that was an exceptional case, but it was one he was sure they would like him to put before them. The Company would get something under £1 after paying the fees to insure twenty-five cows without the first loss.

The SECRETARY said at the present time they received 1/6 for inspecting one animal or for two head 2/6. From three to ten they received 1/0 each, and for every extra ten sixpence each. Those were the fees allowed by several of the insurance companies.

Mr. DUNKIN said what he had been doing was to tell the agents that the fees allowed to inspectors were inadequate, and, as far as he could, he had only examined those animals belonging to his clients. He had pointed it out also to his clients, who in a considerable number of cases had doubled the fee, making the fee of 3/6 allowed by the company up to 7/0.

Prof. WOOLDRIDGE said there was a serious flaw in Mr. Dunkin's calculations, inasmuch as the owner who paid the £5 premium was an owner who was willing to stand the loss of his first cow which ought at a low figure to be worth at least £15. On Mr. Dunkin's showing the man was practically paying to value of £20, and not £5, and any deduction must be based on the £20, and not on the £5, which was a very serious difference. Instead of their getting £3 10s. out of £5 they were getting £3 10s. out of £20, which was a very different story.

Mr. DUNKIN said he advised the owner that it was not a good policy to take out.

Mr. W. H. CROWHURST asked if they were called to examine three cows for insurance were they to charge 5/0 for the first and 2/6 for each animal afterwards. He was prepared to fall in with whatever was the wish of the Association.

The PRESIDENT said the scale had been discussed by gentlemen who he thought were fully competent to deal with the matter, and they came to the opinion that the profession had been underpaid in the past. It was very nice for any gentleman to stand up for the insurance companies but he thought they were fully able to take care of themselves.

The SECRETARY accepted the suggestion of Prof. Wooldridge—that pedigree cattle be charged for according to value, in the same way as horses, and embodied it in his resolution.

Mr. HIBBARD asked if there was to be any alteration as to the suggested minimum fee of 5/0 for inspecting horses.

The SECRETARY said he was not inclined to accept that suggested alteration; he thought they should let that remain for the National to decide.

Prof. WOOLDRIDGE proposed that the fee for inspecting pedigree cattle be a scale of valuation the same as for horses.

Mr. T. F. HOGGEN seconded, and this was agreed to by the meeting.

Prof. WOOLDRIDGE pointed out that nothing was said as to the fee for the examination of a flock of sheep or of pigs, but in some parts of the country the insurance of pigs was very common.

The SECRETARY said in the Victoria Insurance Company there was no scale as to pigs; that was left for special arrangement. The Imperial allowed 3d. for the inspection of pigs; for sheep that were insured for twelve months 2/6 per score, and for young heifers and bullocks 6d. each. He would propose that in the case of young cattle, sheep, or pigs the fee be left for arrangement between the veterinary inspector and the company.

Mr. T. F. HOGGEN said in the Southern Counties very little was done in the way of insurance of sheep and pigs.

Prof. WOOLDRIDGE seconded the Secretary's amendment, which was agreed to.

The SECRETARY asked when the fees should be brought into force locally.

Mr. HIBBARD suggested that notice should be given to the companies that the scale was in force.

Prof. WOOLDRIDGE proposed that two or three members be appointed to carry the matter through with the companies. Lloyds appeared to regulate the fees that were paid for the insurance of cattle, and he thought the scale would have to be sent through them to go to the different insurance companies.

The SECRETARY said he believed Lloyds Committee dealing with those matters met every week. Insurance companies having difficulties brought the matters before the meeting of the Committee the following week, and they were dealt with fairly promptly.

Mr. T. F. HOGGEN said he thought it should be submitted to the Insurance Committee as they were not standing in a position that they could claim those fees unless they were put before the companies.

The SECRETARY said nearly half of the Veterinary Societies had already approved of the suggested scale; the other Societies were considering the matter at their next meeting. For these he was waiting.

On the proposition of Mr. Hibbard the Committee to bring the scale of fees before companies was composed of the President, the Secretary, and Mr. Dixon.

#### SECRETARY'S REPORT.

The SECRETARY was pleased to say they now numbered 41 members. (Applause). They had very largely increased since they met there a year ago, in fact they had increased entirely beyond his expectations. Considering that they had only been formed a short time, he thought they had done some useful work with regard to the inspectors' fees, and now with regard to the fees paid by insurance companies.

At the next meeting he hoped to add a considerable number of members from Sussex. On that point he wished to make one remark. He wanted to see each Society with a definite area where it could exercise its influence. He thought by confining themselves to Kent they were not going as far afield as they might do. East Sussex was not served by the Southern Counties for the same difficulty that they had. He intended making the suggestion in the future that their dividing line should be the London and Brighton line and all on this side they consider their ground to work and likewise a portion of Surrey in the same way. By meeting on the other side they would be able to add to their numbers.

He was not going to offer them a financial statement that day, because until the expenses of that meeting had been paid it was difficult to render a balance sheet. He might say, however, that it had been a rather costly year. The amount of correspondence he had had over the question of the fees had been enormous, and when he told them his bill for postages was nearly £3 they would be able to imagine he had had some writing. As far as he could estimate their expenses up to that day had been something under £20, and when all the subscriptions had been paid he hoped they would still have about £16 in hand. (Applause). He hoped they would regard it as a satisfactory report, but at the next meeting he would render a duly audited balance sheet.

#### THE INTERNATIONAL CONGRESS.

He had received the circular letter from Sir Stewart Stockman with regard to the subscription list. When that matter first came before them Mr.

Martin remarked that they were a young Association and he did not think they could very well afford a donation from their funds. The matter was deferred to be discussed when they had some money to spend. Two other applications had since been made, and he (Mr. Toope) therefore thought it necessary to again bring the matter before them.

Mr. MARTIN said they could congratulate themselves on having such indefatigable officers as Mr. Toope and Mr. Crowhurst, who were entitled to their best thanks for the time they devoted to the progress and the business of that Association. He thought they would be ashamed of themselves as an Association if they did not do something for the International Congress, which was of great importance. He was very glad to see that there was so much enthusiasm in their own Association, because he found when he formed the Southern Counties that there was great apathy among members in East Kent in joining. He was glad to find so much enthusiasm displayed, and that they were doing some good. Mr. Garnett, the treasurer of the International Congress, whom he invited to be present that day, suggested they might defer consideration of that matter until the next meeting as he wished to come down to give them a fuller explanation than he (Mr. Martin) could give. He would be pleased to give five guineas to the fund of the Congress. (App.)

Prof. WOOLDRIDGE said between £3000 and £4000 would be required for the International Congress. As the Government does not assist with regard to the funds, it behoves every member of the profession to see that it does not suffer in comparison with other countries. Probably they were aware that the series of congresses was brought into being through the energy of an Englishman—Prof. Gamgee, and that in spite of that fact the congress had never been held in England before, this was the jubilee of the congresses, and it behoved them as a profession to work hard to get funds and to make it worthy of the country that originated the congresses. The only thing the Government did was to give a reception to the foreign delegates attending. To do anything else would be to establish a precedent that it had no desire to do. Sir John M'Fadyean had received ten donations of £100 each, so that they had £1000 towards the expenses. Other members of the profession promised smaller amounts, several contributing £50, £30, and £20 and so on, while some of them, including himself, had promised something less.

On the suggestion of the President, it was decided to leave the matter over until the next meeting when Mr. Garnett would probably be able to attend.

#### V. V. B. F.

The SECRETARY said another matter on the agenda paper was in reference to the Veterinary Benevolent Institution. He had great hopes that Mr. Shipley would have been present that day, but he was unable. He (Mr. Toope) was quite prepared to receive any subscriptions for the Benevolent Fund. From what Mr. Shipley said a few days previously he was somewhat astonished at the number of cases that really needed assistance. He had no idea that the veterinary profession had so many poor in its list, and therefore any subscriptions made he would be pleased to send on to the Secretary and Treasurer, Mr. Shipley.

#### ELECTION OF OFFICERS.

The PRESIDENT said he should like them to look back a little. They had been an Association for about twelve months, and he would like to take a short review of the work done by the Association, as he thought it had met with general approval not only in that Association, but in others, and at the National particularly. They could take some credit for their Association. They knew the work that had been done, and he would like some ex-

pression of opinion as to their satisfaction. He must say he felt very satisfied with the work, and if it was the meeting's pleasure to express approval in the officers and the Association he thought it would be very welcome to those who had strenuously accomplished that which they had done.

Mr. LYNE DIXON, in proposing the re-election of Mr. James Crowhurst as President, said their's was a young Association, but one year had passed very successfully under Mr. Crowhurst's presidency. They had had a fighting year, but there was some more fighting before them to do. He thought they would all agree with him that Mr. Crowhurst ought to be re-elected President for a second year. (Applause.) His interest in the Association was well known to them all. His heart and soul were in it, and whatever work was ahead he was sure to do it as well in the future as he had done it in the past. He (Mr. Dixon) was sure no words of his were required to commend that resolution to their notice.

Mr. MARTIN, in seconding, said Mr. Crowhurst was a very able man and he had devoted a great deal of time to the work of the Association, and by his zeal and ability had raised it to its present level.

Mr. T. F. HOGGEN said in Mr. Crowhurst they had the best man they could find for the office, and the thanks of every individual member were due to him for the hard work he had done for the Association, and for the manner in which he had carried out the office of President during the past year. He felt sure there was not a better man to take office for a second year than Mr. Crowhurst.

Prof. WOOLDRIDGE said he would like to add his tribute to the services rendered by Mr. Crowhurst. He thought Mr. Crowhurst should experience a little sense of satisfaction from the fact that when Mr. Dixon sat down there was an attempt on the part of most of the members present to get up to second the resolution. It was true there was a lot of work to be done, and there was also a lot of work in hand, and when work was being done he thought it was unwise to change leaders. They could not do better than re-elect Mr. Crowhurst if he would accept office for the coming year.

The motion was carried unanimously.

The PRESIDENT, in returning thanks, said that was not the vote of satisfaction that he had been expecting. He was simply expecting to be thanked for the humble services he had been able to render. If they wished to re-elect him that would more than convince him they thought that in the past he had done his best. As Mr. Dixon said the Association was a fighting Association. In fighting they were bound to have some little feeling, but there had been very little adverse opinion or dissatisfaction expressed. He was thankful they had carried their point with the Kent County Council, and he was proud that it had been done without any friction. Mr. Martin, Mr. Roberts, Mr. Dixon, and Mr. Toope had rendered valuable assistance, and there had been no friction at all. He hoped that they would be able to put the insurance fees on a practical basis and if they could it would give as much satisfaction throughout the United Kingdom as the matter of inspectors' fees had done, and of course it would be of more general benefit, because they were not all inspectors. He did not know whether they were wise in electing him president for the second time. Young blood could do more than the old man of seventy-five, but if they wished it he would accept office again with all gratitude. (Applause.)

*Secretary and Treasurer.*—The PRESIDENT, in proposing the re-election of Mr. Toope, said there was not a secretary in the whole of the United Kingdom who was more earnest and worked harder than their secretary—nor with better success. As they had re-elected him (Mr. Crowhurst) president he hoped they would accord him the same support as in the past, and he hoped Mr. Toope would accept office again.



Mr. RICHARDSON seconded.

Prof. WOOLDRIDGE, in supporting, said how much Mr. Toope's services were appreciated was proved by the fact that the National had appointed him secretary for Southern Branch of the National Association. The success that had attended the South Eastern Association was to a great extent owing to the combined efforts of their president and secretary.

The proposition was carried unanimously.

Mr. TOOPE, in returning thanks, said he was very much obliged for the way the members appreciated the work he had done, and he referred not only to the members of that Society but also to the National Society. He took it that the honour that had been conferred on him by appointing him secretary to the Southern branch of the National was not so much an honour to him as to the work that they had done. He should be very pleased to continue the work and he would promise to continue it in the same way as he had done. All he asked for was the support of every member, and if he had the same hearty support as in the past, and in fact their increased support he was sure their Society would become A 1 amongst the societies in England. He could say that the work they had accomplished was recognised throughout the whole of the kingdom. That he learned as long ago as last July, and it was brought back to him by his appointment to the Southern Branch of the National. He hoped to continue the work there which they commenced among themselves, and very shortly to bring forward the insurance fee question before the Southern Branch of the National. He meant not to let his Branch go to sleep if he could help it, but to fight to make it what it should be, namely the House of Commons of the veterinary profession.

On the proposition of Mr. T. F. Hogben, seconded by Mr. Fordham, Messrs. Richard Roberts, William Crowhurst, and E. L. Dixon were re-elected vice-presidents of the Association, and on the motion of the Secretary, seconded by Mr. Dixon, Messrs. Cave, Ebbetts, T. F. Hogben, T. A. Huband, and T. Hibbard were chosen to form the committee.

Mr. G. W. Dunkin and T. F. Hogben were elected hon. auditors.

The Secretary said by their numbers they were now entitled to a third delegate on the Council of the National Society, and he proposed Mr. E. Lyne Dixon be elected to that position. He (Mr. Toope) was a delegate by virtue of his office, and their President was also a delegate by being President of that Society.

Mr. W. H. CROWHURST seconded the appointment of Mr. Dixon, and it was unanimously agreed to.

The SECRETARY said that the last time he was in London he proposed that Mr. Dixon be elected on the provisional committee, and as Mr. Huband was also a member he thought they were well represented.

Mr. DIXON, in proposing a vote of thanks to the President, said he could only reiterate what he had already said. Everyone appreciated the good work Mr. Crowhurst had put in. He had given a lot of time to the office of President. He had great pleasure in proposing a hearty vote of thanks to him for the able way he had carried out his duties during the past year.

Mr. T. F. HOGBEN seconded.

The SECRETARY, in supporting the motion, said they could not wish for a better President. He was glad the meeting had re-elected Mr. Crowhurst because they worked together in a most satisfactory way, and it was very convenient for him (Mr. Toope) to meet him in Canterbury on Saturday. Whenever there was any knotty point Mr. Crowhurst's advice was generously given, and he (Mr. Toope) could assure them it was as generously taken and used.

The proposition was carried unanimously.

The PRESIDENT returned thanks and said he appreciated very much the meeting's kind vote of thanks. He would only add that he hoped he should be able to carry out the duties as well in the coming year; at any rate he would try to do his best (Applause).

Prof. WOOLDRIDGE proposed a vote of thanks to Mr. Toope, and remarked that considering the work that he did in running about on behalf of the Society, it was a wonder that he remained in such good condition (Hear, hear, and laughter).

Mr. W. H. CROWHURST seconded, and said they had got to look sharp after Mr. Toope or another Society would run away with him.

Mr. MARTIN said they would not have had a Society had it not been for Mr. Toope.

The motion having been carried unanimously, Mr. Toope briefly returned thanks to the meeting for re-electing him.

### THE RELATIONSHIP BETWEEN THE BOARD OF AGRICULTURE AND THE VETERINARY PRACTITIONER.

By E. L. DIXON, M.R.C.V.S.

Mr. President and Gentlemen,—As the subject matter which I have the pleasure to bring forward this afternoon relates to the Board of Agriculture, I feel that, before commencing the remarks I have to make, I should like to express, on behalf of the Veterinary Surgeons assembled here at this, the First Annual Meeting of the South Eastern Veterinary Association their unfeigned pleasure at the distinguished honour conferred on the chief Veterinary Officer by his Majesty the King. Mr. (now Sir) Stewart Stockman, well merits this recognition of the meritorious services that he has rendered as chief of his Department and as a Scientist of the first order. You will, I am sure, join me in congratulating Sir Stewart on this signal honour to himself, and which, through him, reflects honour on the profession of which he is so distinguished a Member.

At a Committee Meeting held here at the County Hotel, Canterbury, in November last, to consider the revised Scale of Fees to Veterinary Inspectors submitted by the Kent County Council; and also to discuss what is of still more importance to the rank and file of the profession, viz. the ridiculously low fees paid by Insurance Companies, with a view to getting them rectified, I say, it was at the termination of business at that Meeting, whilst debating matters of interest, amongst other important subjects the question of the Board of Agriculture and its relationship to the profession was raised by your President and Secretary, and as an outcome of that discussion I was asked by them to offer a few remarks on this question at the first Annual General Meeting.

It is not my intention to endeavour to create friction between the Board of Agriculture and the Members of the Veterinary Profession, but there are in my opinion injustices meted out to the latter by the Board, which should not be, and possibly an expression of feeling from this Association, especially if supported by other Associations, might go a long way in getting our grievances rectified.

In the first place, I desire to call your attention to the conditions under which various districts were worked, up to within quite recent years, as regards the diseases notifiable to the Board of Agriculture. It was customary for the principal Veterinary Surgeon of standing in whose area the outbreak occurred to be employed by the Board in dealing with an outbreak, or suspected outbreak of Swine Fever, Pleuro-pneumonia, Contagious Foot-and-mouth Disease, etc., as the case might be. I, in common with many other Veterinary Surgeons in this room acted in this capacity in my particular district,

Thanet Division of Kent, for many years, but for some unexplained reason the Board thought fit to alter their arrangements and re-organize their Staff of Acting Veterinary Surgeons throughout the different Counties of England, thereby considerably reducing their number to the exclusion of many practical men of years experience. Do not misunderstand me. I have not one word to say against the gentlemen whom the Board have thought fit to appoint. Doubtless efficiency is quite as equally served as under the old *regime*, but from an economic point of view this cannot be, for at present, if a pig is reported, say, with Swine Fever, a Veterinary Surgeon—not a Board of Agriculture Veterinary Surgeon, but a private practitioner—is sent twenty, twenty-five, and even thirty miles to see the animal which is within a mile of the door of the Veterinary Surgeon who has been the means of notifying to the Board, and who is equally capable of dealing with the outbreak.

Is this just or equitable to the local practitioner in whose district or area the outbreak occurs? I say distinctly no.

I desire in the next place to express my regret that the Board should not extend a little more courtesy to the Members of the Profession.

To be struck off the list in common with many others, after acting on behalf of the Board for many years without any notification or explanatory letter is of itself, to say the least, discourteous. It would have cost nothing, and would have been appreciated—even if no reason had been adduced, to intimate that one's services would no longer be required. I am aware the Board of Agriculture has a perfect right to conduct its business in its own way, but what I object to, and object to most strongly, is the tendency to ignore the Veterinary Practitioner. If a case is reported by him as a suspected case of Swine Fever, he hears nothing more of the matter except from an outside source after inquiry, whether the Board declared the case one of Swine Fever or not. An intimation by the Board to the Veterinary Surgeon who has notified would be appreciated.

The Board of Agriculture absolutely depends upon the private practitioner for the reporting of notifiable diseases, and I think I am right in stating that the whole of the members of the profession are in accord in endeavouring to assist the Board as far as lay in their power in arresting the progress of, and if possible exterminating disease.

Is it much to ask in return some consideration and show of courtesy, instead of being slighted and ignored?

During the past year I had an outbreak of disease amongst a large number of pigs which proved ultimately to be swine fever, but only after two or three weeks could the disease be positively and specifically declared. Pigs died at three or four to seven days interval. Post-mortems were made on each one, and yet there was no specific lesions of the disease, until at last I found one that I killed exhibiting the characteristic lesions. Notification was immediately given to the police.

I should never have known from that day to this, whether my diagnosis were confirmed, had I not subsequently called round at the Farm, when I found from the owner that the disease had been declared. The only official notification was indirectly from one of the officers of the Board by letter through a police inspector on the telephone, in which he asked me why the outbreak had not been reported earlier. My reply to the inspector was that if the gentlemen in question required any information I should be most happy to give it on personal application or interview, but I refused to discuss the subject indirectly on the telephone through the police.

I wrote to the gentleman in question giving my reason why no notification had been made earlier, viz., that I was not satisfied that the disease existed and no practitioner is compelled to notify unless he has reasonable ground for the suspicion that it exists. Directly I was

satisfied, I notified. At the same time I expressed my regret that he had not communicated with me direct, instead of asking through a policeman on the telephone what I considered an impertinent question. His reply was that of a gentleman, expressing regret for the occurrence and trusting he would see me shortly. I have not done so up to now, although this was in July or August last.

I am obliged to you for your patient attention to these few remarks. My object in addressing you was twofold—

Firstly, to express a hope that the Board would see its way clear to extend its patronage to the majority of veterinary practitioners, instead of at present to an exclusive minority.

Secondly, if unable to acquiesce in this request, at all events to treat the members of the veterinary profession with that courtesy and consideration to which they are entitled.

If you agree with the remarks that I offer, say so; if on the other hand you differ, I shall equally welcome any criticism. I have had the temerity to bring the matter forward, because I have felt very strongly on the subject, which, in my opinion, very largely affects a majority of the veterinary profession.

The PRESIDENT said they were greatly indebted to Mr. Dixon for his valuable paper, with which he agreed. He proposed a vote of thanks to Mr. Dixon for his paper, and said they would not have time to discuss it that afternoon, but it would be most interesting to discuss it at some future time.

Mr. T. F. HOGGEN seconded the vote of thanks.

Mr. MARTIN, in supporting, said he was glad to know there was so much latent talent. It was a very important paper, and if he were in practice he should strongly object to a member of their profession being appointed to come to inspect cattle in his district, as he should take it as meaning that he was incapable of performing his duties as a veterinary surgeon. After Mr. Dixon's paper was published he was convinced that Sir Stewart Stockman would assist them as much as he could. Sir Stewart Stockman was a very capable man and he mixed with the profession, and he was sure he had the interests of the profession at heart. Sir Stewart Stockman had had the honour of Knighthood conferred on him, and very justly too, and they must congratulate him and congratulate themselves that the veterinary profession was being recognised. By their united action they could bring to bear a certain amount of influence upon Parliament. They ought to have some subsidy from Parliament as in other countries. He believed by the pressure and influence they could bring to bear and the fact that their services were recognised Sir Stewart Stockman would assist them.

The vote of thanks to Mr. Dixon was carried, and Mr. Dixon acknowledged the compliment.

On the proposition of Mr. Ebbetts, seconded by Mr. Hibbard, it was decided to hold the next meeting at the Star Hotel, Maidstone, in May next.

#### SPECIMENS.

Prof. WOODBRIDGE introduced a most interesting post-mortem specimen.

Mr. DIXON showed a patient suffering from an uncommon form of skin disease.

Both the specimens were of rare interest to the members, who accorded thanks to both gentlemen.

#### THE ANNUAL DINNER.

The first annual dinner was subsequently held at which the President, Mr. James Crowhurst, presided, and was supported by Mrs. Crowhurst, Mr. and Mrs. E. Lyne Dixon, Mr. W. H. Crowhurst, Major Edwards, Mr. Martin, and Mr. and Mrs. Toope, others present

including Prof. Wooldridge, Mr. and Mrs. Hibbard, the Misses Hogben and Miss Knight and the whole of the members attending the general meeting.

After an excellent dinner had been partaken of, a short toast list was honoured.

The PRESIDENT submitted the loyal toasts.

Mr. E. MORGAN proposed "The Navy, Army, and territorial Forces," to which Major Edwards, A.V.S., and Mr. Hibbard suitably responded.

Prof. WOOLDRIDGE, in giving the toast of "The President," said they all knew Mr. James Crowhurst better than he did personally, but he had met him on several occasions during the past year, especially in connection with the duties of that Association, and he had formed the same opinion of him as they had proved previously by electing him to the chair of that Association. The work Mr. Crowhurst had done for that Association he felt confident could not have been done so well by any other man in the Association, and he said that with all due respect to the other members of the Association. Mr. Crowhurst was a born leader, and with his able assistant (Mr. Toope) had done such good work that it had been taken up by the rest of the Societies throughout England.

The health of Mr. and Mrs. Crowhurst were enthusiastically drunk, and the President thanked the company for its kind expressions and for drinking his health and also that of his wife. If they had a friend in the profession he was sure it was Prof. Wooldridge. (Applause.) He (Mr. Crowhurst) wished them to accept his warmest thanks for their kindness that evening, and for re-electing him as President that day. He proposed to do the best he could for the Association in every way, and he hoped the ensuing year would be successful.

Mr. DIXON proposed the health of the Secretary and Treasurer, Mr. Toope. He remarked that it was only the members of that Association who knew the very hard and valued work that Mr. Toope put in for that Association. Since the Association was formed twelve months ago one could hardly comprehend the amount of work Mr. Toope had done, especially over the Inspectors' fee question, the amount of correspondence with the different societies in England being enormous. He (Mr. Dixon) thought their best thanks was due to Mr. Toope for accepting the post of Secretary and for carrying out the duties in such an excellent manner. (Applause.) He hoped Mr. Toope would long be spared to fill the position of Secretary and Treasurer, for he thought they as an Association were to be congratulated on having the services of such a Secretary at its disposal. (Applause.)

The toast was accorded a hearty reception, and the health of Mrs. Toope was also drunk.

Mr. TOOPE said he was deeply obliged to Mr. Dixon for the way in which he had proposed his health and he also wished to thank the company for adding cheers for his wife. He might say that his wife was nearly as much interested in that Association as he was himself. She took the deepest interest in it, particularly from the social point of view, and they were particularly desirous of making that side an absolute success. There ought to have been a larger attendance at that dinner, but they could not alter eventualities. The weather had kept some away, and business had kept many others away. He knew the difficulty many had in keeping appointments of that sort. They were busy men, nine out of every ten, and few could afford the luxury of keeping an assistant. With regard to the future of the Association, he believed there was every prospect of their continuously improving and adding to their numbers, and that he was very anxious to do. He hoped any member present would induce his brother surgeons to join the Association, because there could be no doubt that if they were united they would get what they asked for—as had been proved with the inspectors' fees received from the County Council. They had

already done more than he expected they would do, but they had still a lot to do. Allusion had been made that afternoon to the fact that he had been appointed to the Southern Division of the National Association. He meant to make the National Association, as far as the Southern section was concerned, a useful association, and if he could not force the hands of those around him he could assure them he should not long remain Secretary of the branch. He intended, if he could, to make the National the House of Commons of their profession, to take up matters that required immediate attention, and he knew that at the National there were men imbued with the same ideas as himself. He could only thank the Association for the honour they conferred on him and the confidence they had placed in him by re-electing him as secretary and treasurer, and he could only say they must credit themselves with some amount of the honour that had been conferred on him by his appointment to the National. It had been the Association's work that had brought him forward and he could not dissociate himself from the Association. He regarded his recent appointment as an honour to the Association more than a personal one to himself. He was glad that those of them who were inspectors in the county of Kent had already had their subscription to that Association paid, while soon the insurance companies would pay the subscriptions of the other members doubly and many times over (Applause).

The concluding toast, that of "The Ladies," was proposed by Mr. H. Hogben (Folkestone), and responded to by Mr. G. W. Dunkin, the only bachelor present.

THEO. C. TOOPE, Hon. Sec.

## ROYAL COLLEGE OF VETERINARY SURGEONS

According to the official Calendar, the Foreign Voting Papers will be issued on Wednesday next, February 5th. The following are the names of gentlemen nominated for election to the Council for whom members of the College practising abroad and in the Colonies will be able to vote. There are 8 vacancies.

Name.	Address.	Proposers.
J. H. CARTER,	Burnley	G. H. Locke J. W. Brittlebank A. Lawson A. E. Mettam.
A. GORTON,	Edinburgh	A. Baird J. Malcolm. F. W. Garnett A. E. Mettam.
J. McI. McCALL,	London	J. Abson J. Clarkson. F. W. Garnett A. Lawson
J. McKENNA,	Huddersfield	G. H. Locke J. W. Brittlebank.
W. J. MULVEY,	London	W. J. Mulvey A. E. Mettam.
W. PACKMAN,	Bury	Sir S. Stockman F. W. Garnett. W. J. Mulvey F. W. Garnett.
T. SALUSBURY PRICE,	Brixton	H. Sumner W. Shipley.
E. S. SHAVE,	London	
W. SHIPLEY,	Gt. Yarmouth	
S. H. SLOCOCK,	Hounslow.	

## Personal.

Mr. J. M'LAUCHLAN YOUNG, F.R.S.E., F.R.C.V.S., of 43 Gladstone Place, Aberdeen, Lecturer on Veterinary Hygiene in the University of Aberdeen, who died on 23rd October, aged forty-four years, left personal estate in the United Kingdom valued at £2038.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN. Week ended Jan. 25	12		13				1	5	97	239	7	39	382
Corresponding week in	1912	26	27				1	3	139	353	13	62	780
	1911	23	36				5	13			28	32	285
	1910		29	31			6	35			23	13	94
Total for 4 weeks, 1912	50		61				13	61	340	825	45	146	1981
Corresponding period in	1912	92	102				12	31	648	1791	63	229	2540
	1911	85	96				18	63			123	141	1523
	1910			152			25	82			138	82	491

† Counties affected, animals attacked : London 5.

Board of Agriculture and Fisheries, Jan. 28, 1913.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
IRELAND. Week ended Jan. 25	...	...	...	...	...	...	...	...	8	32	6	44	
Corresponding Week in	1912	...	...	...	...	...	...	...	4	24	4	11	
	1911	...	...	...	...	...	...	...	1	27	5	48	
	1910	...	...	...	...	...	...	...	3	20	1	24	
Total for 4 weeks, 1912	...	...	...	...	...	...	...	...	37	77	24	99	
Corresponding period in	1912	...	1	1	...	...	...	...	8	86	11	146	
	1911	...	1	1	...	...	...	...	8	96	17	281	
	1910	...	2	2	...	...	...	...	12	100	2	83	

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Jan. 27, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Jan. 28

REGULAR FORCES. ARMY VETERINARY CORPS.

The following Captains to be Majors :—

P. J. Harris. Dated Dec. 2, 1912. J. A. B. McGowan.

Dated Jan. 22.

## OBITUARY

HENRY SMITH, v.s., Gislegham, Eye, Suffolk, died on Jan. 26th, from gangrene, following ulcer of leg. Aged 79 years.

ARTHUR WIGHTMAN, v.s., Brockford, near Mendlesham, Stonham, Suffolk, died on Jan. 21st, at the age of 85, from pneumonia.

## CORRESPONDENCE.

## THE SOCIETIES AND THE COUNCIL ELECTIONS.

Sir,  
The union of the Societies, which has been so long discussed and from which so much may justly be hoped, is now an accomplished fact. But for many years past certain societies have been accustomed to indulge in a sort of temporary union at each Council election—to "amalgamate" their forces and influences in order to recommend to the notice of the electors a number of candidates for the Council, one chosen from the ranks of each of the "amalgamating" societies. This year's election is now drawing near, and I

am wondering whether those societies will still continue the practice they have followed so long. I think that they would do far better to drop it, and this letter is written in the hope of discovering others who think likewise.

We all know how nominees of societies find their way to the Council. Only a comparatively small proportion of the members of a provincial society remote from London are prepared to face the expenditure of time and money which Council service entails. Naturally, therefore, a society with a *penchant* for running an annual candidate finds its choice somewhat limited. It follows that any man who desires office on the Council, and is not extremely unpopular amongst the members of his professional society, can get nominated as its candidate; and then, however obscure and undeserving he may be, he stands an excellent chance of election to the Parliament of the profession. As a rule he stands for no particular policy or principle—he simply runs as the nominee of his Society; and his election address, if he issues one, is generally vague and often stupid. But if the recommendation of his own Society and those allying with it, and their votes do not quite elect him the first year he puts up, they are nearly certain to do so the next year—or the year after; and once elected, he is almost sure of obtaining re-election by the same means that elected him first.

What have the results been? In the first place, the practice has led to a preponderance of Councilmen hailing from certain counties—those counties, of course, where there are veterinary societies most addicted to running candidates. No less than *ten* of the present Council come from Yorkshire and Lancashire, and nearly, if not quite all of them have been elected through the agency of their societies. Without any desire to minimise the importance of Lancashire and Yorkshire, I say that they are not entitled to share nearly one-third of the seats on the Council between them.

But a more serious question is—of what type are the men whom the societies have presented to the profession as suitable for Council service, and persuaded the profession to accept as being so? Here, of course, I am speaking very generally. I admit that the Societies have sent up some good men, but they have also sent up a great many mediocrities, and with them a fair sprinkling of individuals who do not even deserve medicine rank. There have been and are members of Council who, in education, in intelligence, and in natural common sense, must be ranked *far below the average practitioner*. Such men could scarcely find their way to the Council at all without the help of the Societies, but the Societies land them there often enough.

The fact is that many of the Societies are exercising their political influence in a wrong way, and that many Councilmen and would-be Councilmen are using the Societies wrongly. It is right that professional politics should be discussed at the Societies' meetings, but it is wrong for the Societies to use their influence to push the candidature of literally *any* of their members who aspire to the Council. And, while it is quite right for a man to use the Societies as a means for making himself known by delivering papers and speeches at their meetings, it is surely the height of effrontery for one who has never become known by that or any other means to push himself forward as the "representative" of a Society that only takes him because it cannot find another nominee. A candidate for Council ought to stand upon his own record of work done for the profession, not upon the personal recommendation of a little clique of his friends.

As an example of justifiable political activity on the part of a veterinary society, let us take the strongest and most influential of all—the Central. It has probably done more than any other to shape our political development—it was at Central meetings, for instance, that the pending Veterinary Surgeons' Bill was first mooted—but it sedulously refrains from running candidates for Council. Other societies do not, and *their* political activity has burdened the Council with a load of useless nonentities. Is it not time to stop it? And is not the present moment, when the Societies themselves are entering upon a new phase of existence, a good opportunity?—Yours faithfully,

"ONLOOKER."

#### THE ROYAL SANITARY INSTITUTE CONGRESS AT EXETER, JULY, 7TH TO 12TH, 1913.

Dear Sir,

Please permit me through the medium of *The Record* to inform the profession that in consideration for the convenience of veterinary surgeons the Council of the Royal Sanitary Institute have changed the day for the meeting of the Conference of Veterinary Inspectors to Thursday, July 10th.

The usual day for the Conference has been Friday, or the last day of the Congress, but in view of the many complaints in veterinary circles that the last day was not sufficient for a proper discussion this change has been made.

It is now up to the veterinary profession to show by attending the Conference in good numbers, that their complaint was well founded, and that the day of meeting was a real hindrance to a good attendance and discussion.

It will have been noticed that several Societies of veterinary surgeons have declined to send delegates to the Congress, as a protest against veterinary matters being left until the end of the meeting, and it is to be hoped that these Societies will now reconsider their action.

Another complaint is that resolutions passed at the Conference of Veterinary Inspectors are not considered. I should like to point out, sir, that through the weekly professional papers, I have for some years called attention to this matter a few days before the Congress, and explained that notice of resolution must be given in accordance with the regulations governing the discussions. If veterinary surgeons attend the Congress this presents no difficulty. All the papers are printed and in the hands of the delegates the first day of the Congress, notice need only be given the day before the Conference when, if passed, it will be duly

considered and, if necessary, acted upon by the Council of the Royal Sanitary Institute.

Preventive medicine and veterinary science are becoming yearly more closely related, and the pending legislation on milk production should be sufficient to assure a good professional attendance at the Congress, and particularly at the Conference of Veterinary Inspectors.

It is disappointing year after year to find such a poor attendance of professional colleagues at these important meetings, and particularly when one reads in practically every society's presidential address some laudatory remarks about public health work and its importance. The profession is never tired of voicing its claims to public health work, and would no doubt feel grossly ill-treated if it was not considered by the Royal Sanitary Institute in the arrangement of the Congresses, but it may be argued that the indifference to the Congress of most veterinary surgeons and of some of their societies is calculated to support their claim neither to public health work nor to adequate recognition by the Royal Sanitary Institute.

If you, sir, as an influential editor, will urge veterinary surgeons to support the Congress in a proper manner, *i.e.* by attending and taking part in the discussions, I am sure you will be doing good work for the welfare of the veterinary profession.

I need scarcely add that I shall be pleased to answer any inquiries about the Congress, and to hear from any veterinary surgeon who would like to ventilate some subject at the Congress.—I am, Sir, yours faithfully,

JAMES A. DIXON,

Hon. Recording Sec. for the Conference of Vet. Insprts.  
Leeds.

#### SCIENTIFIC PROGRESS QUACKERY AND ADVERTISING.

Sir,

After reading many articles and letters in the veterinary press one might ask—have we really made any scientific and practical progress? If we have, are we not inconsistent when our actions are not suited to our theories? All of us are very fond of prating about our professional ascension when in reality a great number of us adopt the methods of the quack.

In looking over druggists' catalogues for the past few years we find awful names given to many messy preparations of which we do not often know the nature of the ingredients in them. Not a few of us, it appears, are quite happy to accept the assurance of the sellers as to the utility of these quack preparations. We purchase them and give them to our patients. Moreover, we sometimes go further and show our appreciation of their mysterious powers and give their proprietors flattering testimonials and recommend them to the notice of our professional brethren, who are as ignorant as we ourselves are of their special virtues. Isn't this quackery pure and simple?

What is the use of the R.C.V.S. compelling students to undergo a course of lectures and demonstrations in materia medica and therapeutics? Why not eliminate these subjects from our curricula and examinations? What is the use of authors wasting their time in writing therapeutical works? Since a goodly few of us do not care to think or observe for ourselves, are so gullible and quite prepared to swallow what druggists tell us about their wonderful preparations bearing a mystifying appellation. If druggists were actual therapeutists, having made a special study of the action and uses of medicinal agents on healthy and diseased animals we could fully appreciate their offering us their special knowledge and experience and should willingly give them our patronage. But to be told by these knights of the pestle and mortar what this or that concoction should be used for is gross impudence on their part and to accept their assumptions blindly is arrant quackery on our part. Practise what we preach and before we stoop to condemn vendors of quack medicine to farmers, etc., let us live up to our professions should be our text.

Instrument makers and dealers are, like a good many of the druggists, not the friends they appear to be to the profession. If we invent a useful instrument for ourselves we

are likely to see it well advertised in agricultural and other lay papers or prominently exhibited at live stock shows for the benefit of our possible clients who are, in consequence, shown how to do without our services. If the instrument makers or dealers were the actual inventors of instruments advertised or sold to the public no objection could be taken. But as a matter of fact, they only carry out our ideas, and unless we make a bargain with them (or patent the articles) beforehand we derive no pecuniary benefit from them beyond our names being puffingly advertised.

As to those gentlemen who patent or derive royalty from instruments, intended for the use of their professional brethren, should it not be considered unprofessional conduct and against the best traditions of professionalism?

We believe the medical profession view the patenting of surgical instruments or appliances, having an open interest in secret preparations or withholding useful discoveries or observations by medical men as unprofessional conduct—all discoveries, inventions and observations should be common property. We wonder when the veterinary profession is going to take up a similar attitude? Perhaps our Council is thinking over it, but before they put it into practice they would have to get rid of the tradesman-minded element from the Board.

A few weeks ago we were greatly surprised and not a little amused to read in a great number of daily and weekly papers of a Royal appointment. This was shortly followed by further epistles in several weekly and other papers, notably doggy ones, of reaffirmation of other Royal appointments. The latter counterblasted the former. Friendly editors were not slow to puff. We ask seriously on behalf of the honour and integrity of the Body Corporate was this information inspired? How did the correspondence on appointments get into the press? Byelaw 108 says:—

"Advertising by Veterinary Surgeons, or causing or permitting other persons to advertise for them, whether by paid advertisement or by editorial or other notice in the public press. . . . Amounts to conduct disgraceful in a professional respect within the meaning of Section 6 of the Veterinary Surgeons Act, 1881."

This is not all. In *The Referee* and other papers we are repeatedly encountering friendly puffs, often vulgarly worded from a professional point of view. We do not fail to notice Royal Coat of Arms and By Appointment on the professional notepaper, billheads, etc. We also observe in the Telephone Directory names and addresses of certain veterinary surgeons in large type, which must be paid for. We finally ask, Is it not time that the Council of the Royal College of Veterinary Surgeons wake up and made a serious inquiry into these points we have raised for the benefit of the profession in general. These points are all verifiable by documentary evidence. If the Council do not move a grave scandal will rest on the College. The smaller fry may ask themselves, How do we stand? They may say we are terrorised, we are bullied and we yield. Not so with some of the bigger fry. They beg pardon but puff or get puffed, etc., again and again.—Yours, etc.,

"SCRUTATOR II."

Sir,

"Scrutator's" grievance is a very good one. The advertising that should be stopped with a very firm hand passes unheeded.

Certain practitioners apparently go the length of seeing that any case they think may catch the public eye and fancy, forthwith finds its way, by hook or by crook, into the press, and more often than not this is accompanied by a photograph or two. The most recent example was afforded this last week in a daily pictorial paper. I am referring to *The Daily Mirror*. It was merely the trivial matter of extracting a hatpin from a four year old dog, and it was accompanied by an X ray photograph. Such a thing may be interesting to the public, but is it of any material benefit to any member of the profession besides the gentleman connected with it? If every remarkable case that a V.S. had was thus brought under the public eye, a special paper, issued daily, would have to be printed. If this is the way to win fame and honour it is quite out of all my ideas of gaining same. Such a case, if it is or has to be reported,

should be reported in this journal or in a kindred one, and not in a public paper.

Another way of apparently trying to advertise "on the cheap" is shown if one looks through some of the public telephone directories. Some gentlemen have their names printed larger than anyone else in the vicinity, and they are made to stand out prominently. It this is not done for advertising, then what is it done for? Amusement? Or was it an error on the printer's part?

The offenders are always those who are notoriously known as having never done anything for the benefit of the profession unless it means self-advancement. I might perhaps modify the word "always" to "generally" as there are exceptions, but the ones that I have before me as I write are not.

I think that the advertising laws shall be drastically reformed. One must not blame the College too severely. Rather blame the members who have not the taste to avoid such reforms being necessary. At present there are too many loopholes for unscrupulous people to escape through. Such manoeuvres do not add to any qualifications or appointments that they may already possess. On the other hand it rather tends to make them lose them, especially the latter. Furthermore, it reduces the professional status to that of a tradesman, and lessens all sense of distinction between the qualified man and the "quack."

HONORIS CAUSA.

Sir,

I can go one better than Mr. Wallis Hoare, in my experience of the Registration Committee.

I once hoisted my flag in the neighbourhood of a prominent member, and he discovered a circular of mine which had been out of circulation for years, and summoned me before the dread assembly, I have since learned to regard with un-mixed contempt. Mentioning the matter to another practitioner, the latter replied "but ——— advertises himself." My friend took a photographer to a certain timber yard where a board 20 feet long was exhibited, and photographed it. When I made my appearance at the R.C.V.S. to defend my awful crime (and incidentally to tell the blighters what I thought of them) I was armed with these photographs, but was refused a show, and referred to the clerk below, to make a formal complaint. I did so. How then do you suppose this honourable body of judges acted? They postponed the matter for a time, and then instructed their Secretary to go and see if the advertisement board really existed. When he went there it did not exist, and he honestly reported the fact.—Yours truly,

HAROLD LEENEY, STILL M.R.C.V.S.

Dear Sir,

In your *Record* of this week, I note some remarks anent advertising in correspondence column. I enclose cutting from *The People's Journal* (Fife and Kinross) penny weekly paper in which the advertisement has been for weeks, whilst it has also appeared in the halfpenny papers.

The district is of less than five miles radius. What would "Scrutator" say to above? You may place it as you choose in your columns.—Yours truly,

RESIDENT VET.

## ROBERT REID,

VETERINARY SURGEON, CUPAR.

Will Visit AUCHTERMUCHTY

MONDAYS and THURSDAYS.

Orders left at Albert Villa, Auchtermuchty, will receive Prompt Attention.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1283.

FEBRUARY 8, 1913.

VOL. XXV.

## Mr. Matthew Hedley, F.R.C.V.S.

The death of Mr. Hedley is a loss to the State, removing as it does one of the most experienced and eminent authorities on veterinary preventive medicine. His whole life has been spent in a campaign against the contagious diseases of animals, and a high level of success has attended his efforts.

He was not a native of Ireland. Born and brought up in the county of Durham, his first experience of veterinary work was gained in a long apprenticeship to his uncle, a practitioner at Darlington. From this he passed to the Royal Veterinary College, London; where he occupied a high position in his classes, and gained the much coveted Coleman medal. Shortly after obtaining his diploma, in 1877, he was appointed veterinary inspector at Stranraer under the Veterinary Department of the Privy Council, of which the late Sir George Brown was then the Director. In 1878 he was appointed Inspector in the Veterinary Department, Privy Council Office, Dublin Castle. At that time Prof. Ferguson was veterinary adviser to the Lord Lieutenant and Privy Council. On his retirement in 1888 Mr. Hedley was made Chief Inspector, with a professional staff which grew in numbers till it became, as now, a large and important body of experts.

In Ireland the local authorities do not carry out the regulations of the Diseases of Animals Acts, as in England; the work is done by the Central body; so it will be seen that the chief of the veterinary department must be a busy man and a good organizer. This was just where Hedley excelled, he was a tactician and organizer of the first water. His earliest experience, as well as his latest, of serious epizootics was with foot-and-mouth disease. The outbreak of thirty years ago was stamped out under his guidance, and the lesson then learned must have been invaluable in the suppression of the recent invasion.

The existence of foot-and-mouth disease was only discovered in Ireland by its detection in England in some cattle imported from Ireland. When informed, Mr. Hedley and his staff of inspectors soon traced and located the disease, but it had spread, and a number of separate infected places resulted. The wonder is that the whole country was not infected, and for successful limitation of the outbreak great credit is due to Mr. Hedley and his staff. There was a great deal of unfair innuendo in the English press, and much ignorant criticism of the Irish Veterinary Inspectorate, but the veterinary staff did its duty unflinchingly, and was well supported by the department and by its head, the Rt. Hon. T. W. Russell. Ireland again claims to be freer of epizootic disease than any other European country. Under Mr.

Hedley's organization and administration foot-and-mouth disease was twice stamped out, pleuro-pneumonia, rabies and glanders have been suppressed—a sufficient record surely for the most ambitious man.

Although never a robust man, Mr. Hedley seemed always to possess energy and enthusiasm for his work, and to find time for many useful pursuits outside his official duties. For many years he was an active member of the Royal Dublin Society, and took part in their Shows at Ballsbridge. He was President, and for many years Treasurer, of the Veterinary Medical Society of Ireland. He was a Vice-president of the Board of Governors of the Royal Veterinary College of Ireland, and took an active part with Sir Christopher Nixon in founding that Institution.

The first visit to Ireland of the National Veterinary Association found Mr. Hedley at its head as President, and at the second visit, five years later, he acted as Local Secretary under the Presidency of Mr. Charles Allen.

Perhaps one of the best exhibitions of his industry, tact, and organizing skill was, many years ago, when the Public Health Congress was held at Dublin. There was a Veterinary Section, and Tuberculosis was the prominent subject. Through Mr. Hedley's arrangements and the assistance of Sir Charles Cameron, the veterinary section had the largest meetings and made the most impression on the public.

Mr. Hedley was a member of more than one Masonic Lodge, and the respect he there earned was shown by the attendance of the craft at his funeral. He did not take a prominent part in the politics of his profession, although he served a term on the Council of the Royal College of Veterinary Surgeons. He took his Fellowship Degree in 1882, and was elected Member of Council in 1892.

Mr. Hedley will be remembered as a successful organizer and administrator who contributed largely to the health and welfare of Irish stock. Among his more intimate friends he has left a reputation for fearless honesty and good-natured geniality. To his family—a widow, an unmarried daughter, and two sons—we all offer our most sincere sympathy.

## THE CONGRESS OF THE ROYAL SANITARY INSTITUTE.

The veterinary profession has long had a genuine grievance against the Royal Sanitary Institute in connection with its annual Congress. The Institute's practice has been not to hold the Conference of Veterinary Inspectors till the last day of the Congress—with the result of inadequate time for discussion and futile resolutions. It must fairly be admitted that the Sanitary Institute might have advanced two not unreasonable excuses for this. Veterinary matters, after all, are far from being the main or most important subjects dealt



with at these Congresses. And certainly our general lack of interest in sanitary work, shown year after year by meagre attendances of veterinary surgeons at the Congresses, could not have greatly encouraged the Institute to study the wishes of the veterinary section. Nevertheless, the Institute has met the profession fully and fairly, as the letter from Mr. James A. Dixon which we printed last week shows. At the next Sanitary Congress in July the veterinary section will meet earlier in the week than hitherto; and there will be ample facilities for discussion and resolutions—provided that due notice is given of the latter.

It remains to be seen how far our members will avail themselves of these improved conditions. Mr. Dixon—one of the most zealous workers in the uphill task of stimulating the profession to an active interest in public health matters—says some strong things in his letter on the sparse attendances at these Congresses in the past; and we are forced to endorse his strictures. As he says, public health figures more or less “in practically every Society’s presidential address,” and it is true also that “the profession is never tired of voicing its claims to public health work.” But the profession, in the main, has not yet shown the interest in public health work that could fairly be expected from a body of men able and willing to take an important share in it. So far as the Sanitary Institute’s Congress is concerned, we have hitherto had one rather poor excuse for our neglect of it—the fact that our deliberations were carried on under some disabilities. That excuse is now removed; it seems that the Veterinary Section will have every facility for which it could fairly ask; and we ought to mark our appreciation by an improved attendance. If we do not, it will speak ill for our professed interest in public health.

Those societies which have already declined to send delegates to the July Congress will, we hope, reconsider their decisions—they have ample time to do so: and, more important still, there should be a good attendance of members in a private capacity, undeputed by societies. We may remind those who have not yet attended a Congress that Mr. Dixon concludes his letter by offering to answer any inquiries.

#### AN EXPERIENCE WITH ARECOLINE HYDROBROMIDE.

The animal, a 4-year-old cow, due to calve in about 6 weeks’ time, had been ailing with symptoms of impaction of the stomachs for 4 weeks prior to my being called in, during which time she had been periodically dosed with purgatives, but, according to the owner, with no satisfactory results.

Having diagnosed the case as one of chronic impaction of the stomachs, and reasoning, from the splendid results I have had with the drug in cases of impaction of the bowels in horses, I decided to try the injection of arecoline hydrobromide.

I gave hypodermically 1 gr. in solution, made from the  $\frac{1}{2}$  grain tablets of Messrs. Parke Davis & Co. In less than 5 minutes after the administration of the drug the animal was in great distress; head and neck fully extended on the ground (the animal in the normal lying position) groaning loudly, with mouth wide open and tongue out. There was no salivation or attempt at defaecation.

Scarcely had another minute elapsed before she flung her head flat on the ground and expired without a struggle.

Although the animal did present a very haggard and emaciated appearance, and the symptoms

shown on examination did not give one the impression that the case was very hopeful, still the manner and suddenness of the end left no doubt in my own mind, as I think also with the owner, that the arecoline was the direct cause of death. The autopsy revealed the stomachs impacted with food of fairly normal consistency, and the small bowels acutely inflamed in patches.

Although this was my first, and so far only experience of arecoline in the cow, I venture to suggest that the indiscriminate use of the drug in all cases of constipation is not entirely free from risk.

I sincerely trust others will record their experience with the drug in cattle. JUNIOR.

#### PYELO-NEPHRITIS IN A MARE:

##### ISOLATION OF THE *BACILLUS COLI COMMUNIS* AND *STAPHYLOCOCCUS ALBUS*.

That nephritic affections in animals run their course, some victims recovering, thanks to the *vis medicatrix nature*, some dying, unrelieved and undiagnosed, we clinicians must all admit. It is really astonishing how some animals can live, and do live, and show little discomfort while suffering from grave organic kidney disease.

Some months ago we were called in to see a mare slowly losing condition. On a general examination no definite diagnosis was arrived at save that due in an open sense to malnutrition: good food, rest, and a course of alterative tonic medicine was ordered.

A month later we received a report that the mare had not improved. We now found symptoms suggestive of kidney derangement; great thirst, repeated micturition, dropsy of hind legs, and slight œdema of breast.

The catheter was passed, and a sample of urine taken away. A film preparation of the centrifuged deposit was made and stained in the ordinary way. The field revealed numerous short bacilli, pus cells, epithelial cells, crystals, etc. A hanging drop preparation was made and examined under a 1/12 O.I. and revealed the presence of motile bacilli. A film was then made, stained by Gram, counter-stained by carbol-fuchsin. This showed the bacilli to be Gram negative.

Having now diagnosed the case as a specific purulent nephritis, a course of Calcium sulphide, Oleum tereb. and Salicylic acid was prescribed, to be given in barley gruel and eggs.

After a month’s treatment no improvement followed; I then suggested to the owner, as the only alternative, vaccine therapy (autogenous). To this he did not agree, and the mare was destroyed.

Post mortem revealed all the organs healthy except the liver, which was cirrhotic, and the urinary system, upon which the following notes were made. The left kidney was shrunken, and on cross section the surface (cortex) showed hæmorrhagic infarcts. The pelvis was filled with a thick slimy, dark grey looking purulent mass. The right kidney appeared to be little more than a mass of disintegrated pulp. The bladder showed an old standing catarrhal cystitis.

Pus taken from the kidney was cultivated (1st) on agar slope at 38° C.; (2nd) on gelatine at room



temperature 20° C. (about); on the former two distinct types of colonies were noticed, i.e. distinct and discrete china-coloured colonies, which proved to be staphylococcus albus, and small grey colonies, semi-translucent—the bacillus coli communis.

On the latter we noted gas formation, gelatine not liquified, and pronounced small grey colonies in 36 hours. Cultivated in Durham's Tubes we obtained acid reactions and production of gas: on dulcete, mamnite, lactose.

It is rather interesting to note that this subject was a mare, and from personal experience I can say kidney diseases are more common in mares than in males, the probable reason being the proximity of the two orifices, the rectum and the vulva, the bacillus coli being mobile and a natural inhabitant of the intestines.

W. M. SCOTT, F.R.C.V.S.

Bridgwater.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### TUBERCULOSIS IN SPAIN.

The following is a summary of some experiments made with milk taken from 200 dairies and shows the danger to man from its use. Six guinea pigs were used in each section.

			Tuberculosis.
Group 1, Sec. 1,	Ingestion of ordny. milk	<i>nil.</i>	
" 2,	" 2, " separated	1	
" 2,	" 1, Hypodermic. ordny.	1	
" 2,	" 2, " separated	2	
" 3,	" 1. Intraperitoneal ordny.	2	
" 2,	" " separated	4	

217 head of cattle out of 43,717 slaughtered in public were condemned for tuberculosis. But reliable estimates place the prevalence of the disease at 7-15 per cent. mostly in imported breeds.

The veterinary section of the Anti-tuberculosis Congress has passed the following resolutions.

1. Milk from dairies is often tubercular and fraught with danger to human life, especially infant, therefore it is the urgent duty of the Government to insist on all dairy cows being submitted to the tuberculin or similar test.

2. Reactors should be slaughtered as soon as possible, in accordance with existing sanitary law.

3. A scheme of compensation should be inaugurated in conjunction with the insurance societies with a view to stamp out the disease. (4).

5. Owing to the relationship of avian tuberculosis to the other types, strict sanitary inspection of poultry should be carried out.

6. Dairies should not be permitted to exist in cities.

7. Strict supervision of imported cattle.

8. On account of their immunity, native breeds should be encouraged and improved.

9. Free distribution of literature.

10. Establishment of a special section in the bacteriological laboratory for the production of a prophylactic or curative serum.

11. A subsidy for experimental work in this respect.—*Sanidad Veterinaria*.

##### ETHYL CHLORIDE AS A GENERAL ANÆSTHETIC.

For the smaller animals, at any rate, general anæsthesia may be safely produced in two or three minutes by the inhalation of ethyl chloride, and will continue for some three or four minutes, so permitting of ordinary operations without the dangers of chloroform, or the necessity of special apparatus.—*Soc. de Sc. Vet.*

##### DIAGNOSIS OF DOURINE.

The movement of the blood cells under a low power such as 3-500 diameters is characteristic of the presence of the trypanosomes, which plunge around in a more or less circular manner and send the cells cannoning against one another, so that such movement raises suspicion pending more exact examination.—*San. Vet.*

F. E. P.

##### EPIZOOTIC ENCEPHALOMYELITIS IN THE HORSE.

José-Maria Quenodo describes (*Revista Zootecnica*) an epizootic affection due to a champignon (the *Aspergillus maydis*) which he observed in horses fed upon a maize diet. This parasite (*A. maydis*) has caused numerous losses, especially during the autumn months of the last two years.

The disease may take a slow or a rapid form. It almost always commences by manifestations of cerebral excitement and an obstinate constipation. At the end of a few hours visual and auditory disturbances appear.

The patient turns in a circle, shows inco-ordination of movements, and then paraplegia. Death supervenes rapidly. The temperature remains normal throughout the duration of the symptoms.

Post-mortem, a little intestinal congestion is found, with repletion of the posterior portions of the intestine (colon and rectum). The nervous system is more rich in lesions; these are—hæmorrhagic infiltrations of the fronto-parietal convolutions, and hæmorrhages in the optic thalami, the corpora striata, the annular protuberance, and the rachidian bulb. The spinal cord presents the same lesions.

The author's researches have demonstrated that the disease is not bacterial, and is not transmissible from horse to horse. On the other hand, injections of cultures of *Aspergillus maydis* have caused, in rabbits, goats, and calves, symptoms, and nervous lesions similar to those observed in horses.—(*Annales de Méd. Vét.*)

##### THE TRYPANOLYTIC POWER OF THE SPLEEN.

Lanfranchi reports (*Recueil de Méd. Vét.*) the results of a series of experiments which he has made upon this subject; and by which he has established the fact that the spleen plays a predominant part in the organic defence against trypanosomiasis. In the spleen, the trypanosomes are very altered and less numerous than in the blood; and extracts of spleen, *in vitro*, show a manifest trypanolytic power.

In splenic media the parasites diminish in viru-

lence, while their virulence remains undiminished in sanguineous media,

The disease always develops much more rapidly in animals deprived of their spleens. The contrary is observed when trypanosomes are inoculated into the spleen instead of into the peritoneum.

Finally, Lanfranchi has been able to establish that, in animals infected with trypanosomiasis and then deprived of their spleens, the evolution of the disease has varied according to the moment when the spleen has been removed.—(*Annales de Méd. Vét.*)

#### GIGANTIC URETHRAL CALCULUS IN A HORSE.

P. Grunth reports (*Maanedskrift for Dyrlæger*) an unusual case of a fifteen-year-old gelding, which was brought to the clinique of the Veterinary High School in Copenhagen. The history was that for a long time the animal had presented a swelling, of the volume and shape of a medium-sized cocoa nut, in the perinæum. For the last month he had urinated in drops, very slowly and with great difficulty, and the urine passed had usually been bloody.

An examination left no doubt that the animal was suffering from an enormous urethral calculus, which had lodged in the pelvic curve of the urethra.

Urethrotomy was performed upon the standing animal under local anæsthesia (cocaine being used) and the best results ensued. The calculus removed smelt strongly of ammonia, was egg-like in shape, and weighed 1,012 grammes (roughly about 2 lbs. 3½ oz.). Its greatest length was 46 centimetres (= about 18 2-5th inches), and its greatest diameter in cross-section was 29 centimetres (about 11 3-5th inches).

The stone was analysed in the chemical laboratory of the School by Prof. Dr. O. T. Christensen, and it was found to consist mainly of carbonate and oxalate of calcium.—(*Berliner Tier. Woch.*)

#### TUBERCULOSIS OF THE MYOCARDIUM IN A DOG.

L. and E. Lépinay record (*Revue de Pathologie Comparée*) the case of a six-year-old dog, which was in an extremely emaciated condition. The temperature was normal. The animal refused all food, the pulse was rapid and irregular, the respiration was jerky, and auscultation revealed râles.

To confirm the diagnosis of tuberculosis, a subcutaneous injection of three drops of diluted tuberculin was given. The animal died the following night.

Post-mortem, dry pleurisy with adhesions was found; and the hilum pulmonis, the tracheo-bronchial glands, and the base of the heart were all united into one voluminous caseous mass.

The lungs were filled with small caseous tubercles. The heart showed pericarditis, with adhesion. The myocardium contained caseous masses of different volumes in its substance. The liver, also, was crammed with caseous tubercles; and each kidney showed one "cavern" and some miliary granulations.—(*Annales de Méd. Vét.*)

#### A RARE LESION IN FOWL CHOLERA.

Kliem, of Halle, reports (*Deutsche Tierarztl. Wochenschr.*) lesions he observed during the post-mortem examination of hens which were demonstrably dead of fowl cholera. Three dead hens were submitted for post-mortem examination, all showing lesions which deviated from those usually observed in fowl cholera, especially in connection with the gizzard, which showed alterations not previously described in the literature of the disease. All three cadavers showed injection of the cardiac vessels, and, in addition, upon cross-section of the gizzard, presented a yellowish white, sero-fibrinous, in parts jelly-like exudate between the mucous membrane and the muscles. The exudate was about 4-10ths of an inch broad, and penetrated the submucous tissue; very extensive—in one gizzard it extended over a quarter of the surface of the organ. The mucous membrane above, and its epithelium, appeared normal, but was very easily detached from the submucosa. Those parts of the submucosa which were devoid of exudate showed lentil-sized sanguineous centres. Bacteriological investigation and experimental inoculations proved without a doubt that the birds had died from fowl cholera.—(*Berliner Tier. Woch.*)

W. R. C.

#### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

A special meeting was held on January 7th at the Grand Hotel, Manchester, the President, J. W. Brittlebank, Esq., in the chair. There were also present:—Messrs. Stent, Ellis, Giblin, Woods, McKinna, Wolstenholme, Clarkson, Wright, Sumner, Packman, Abson, Noël Pillers, Whitehead, Blakemore, Munro, jun., Holroyd, Share-Jones, Lawson, Taylor, Prof. Woodruff, Spreull, Turner, Wilson, and G. H. Locke.

The PRESIDENT said they would all remember that this meeting had been specially summoned to discuss the paper read before the last meeting by Prof. Woodruff on "Retrospect and Prospect—the Profession's Policy." [*V.R.*, Jan. 4., pp. 410-14].

The President expressed his delight at having the Professor amongst them again, and hoped the scope of the discussion would do full justice to the subject.

Mr. Woods first drew attention to the paragraph referring to contagious diseases in which it is stated that where veterinary advice has been taken contagious disease has been successfully grappled with; the best example being in glanders, and in a lesser degree rabies. He thought the word lesser must be a clerical error, inasmuch as the disease has been completely stamped out. Reading on to the reference to the results of Royal Commissions in regard to tuberculosis, it was stated that no action is being taken. He believed, however, that action shortly would be taken, and he did not think it was the business of the veterinary profession to say very much about tuberculosis—at any rate in disparagement of the results so far attained. It is with a view to saving human beings from tuberculosis that all this legislation is being brought about with regard to the lower animals.

It is very greatly to our advantage that tuberculosis should be stamped out among cattle. Any person with a cattle practice knows that the first thing to be considered in a case of pneumonia is whether it is tuber-

cular, and they also know the great difficulty in answering the question. His experience was that in cases which are not tuberculous generally recover.

It was an undoubted fact that if tuberculosis were stamped out amongst either cow, pig, or animals subject to the disease, only the fringe of the matter would be touched so far as human beings were concerned. If statistics of tuberculosis in towns were taken they would find the greatest incidence in slum areas where the least milk is drunk; on the other hand in districts where the greatest amount of milk is consumed there is the least amount of tuberculosis. They should help to stamp out the disease in cattle, but it would make comparatively slight difference in the health of the country.

Discussing swine fever, and the probable demand for county veterinary officers, Mr. Woods said there was no disease with which he was acquainted that required more extensive local knowledge if it was to be stamped out; and it was hopeless for a central body in London to attempt to do so. The same applies to anthrax. County veterinary officers should be appointed, and should each have a small laboratory sufficient for diagnostic purposes; then, knowing the conditions, they should advise the county council who should be able, within limits, to make their own laws. There would thus be a better chance of stamping-out swine fever than at present, and a far better chance of stamping-out anthrax.

Alluding to the reference to no veterinary surgeon being in the Departmental Committee to enquire into the training and education of veterinary surgeons, Mr. Woods expressed little faith in such committees, and was not sure of the mode of their composition. In his experience the department principally concerned has had certain things in view, and called expert witnesses before them whose views they knew would coincide with their own.

All were agreed, he thought, that there should be no lowering of the standard of the preliminary certificate. The comparison of Eton, Harrow, and public school boys and seventh standard school boys opened up the question as to what is education. If education consists in the three R's he was prepared to admit that a Board school is as good as any other school; but if education is the formation of character, then he claimed that the public schools are the finest educational bodies in the world.

Revision of curriculum. He agreed that it had been a long time under consideration, but one of the difficulties is that the four-years-course cannot be extended in length. Also every teacher and examiner thinks his own subject the most important and wants it to be more prominent.

Inspection of meat and milk. He would ask—Are the schools in a position to teach meat inspection? They must have practical instruction in abattoirs and not perfunctory visits. This would be difficult to get in the four years curriculum. It is a big subject, and should have a special examination. So far as he could see there are only two ways of dealing with meat inspection; one is to claim that the ordinary diploma is sufficient to qualify a veterinary surgeon as meat inspector; and the other is to drop meat inspection out of the curriculum and put it in the post-graduate course.

Examinations and examiners. Mr. Woods thought they could not deny that the present system is extravagant and costly, but he did not know of any perfect system. Injustice will occasionally arise.

Association of teachers with examiners. He challenged the statement that the Royal College of Veterinary Surgeons stands practically alone in retaining purely external examiners with no association of the teachers as co-examiners.

[Prof. Woodruff interposing said that lawyers, engineers, and anybody else taking a university degree

were examined by examiners composed partly of teachers or professors].

Mr. Woods said he had heard a university boast of the small number of students it had passed, but he asked had they ever heard a veterinary school boast that it had not passed a great number of students. So long as they are competing with each other in regard to the number of students that they pass, so long will it be unsafe to trust human nature to the extent that teachers can take part in the examination of students. This, in his opinion, could not be done until the veterinary schools are free financial worry.

Mention had been made that the best schools do not, under the present system, get the best results. He would ask which is the best school? Suppose they asked Prof. McCall, Prof. Bradley, Prof. M'Fadyean. He ventured to think they would hear of three "best" schools—not one. He agreed it would be a good thing for all the students to be examined in one centre.

Post-graduate courses. They would admit that there is a demand for post-graduate training, but the difficult question is—Who shall deal with it? The Royal College should institute the examination and let the universities teach for it. It would also be a source of income.

He could not close without saying that in Professor Woodruff's departure the London School is losing a brilliant teacher. He could testify, as examiner of students, to the careful, conscientious, and capable manner in which Professor Woodruff trained his students. A teacher requires a great many qualifications besides a knowledge of his subject, and these qualifications were embodied to an eminent degree in Prof. Woodruff.

Prof. SHARE-JONES said that, summed up, his opinion would be that he agreed practically with the paper in its entirety. He would not, however, like some of Mr. Woods' remarks to go unchallenged, particularly that in which he tended to minimise the importance of the inspection of milk in regard to the elimination of tuberculosis from the human subject. Probably a statement of that kind would do infinite harm in the present campaign which is being waged against tuberculosis. In a recent paper given by Dr. Hope, Medical Officer of Health, Liverpool, he attributed the immense decrease which had occurred in infant mortality in that City to the inspection of milk—and to that alone. The importance of this should be magnified, if it is possible, rather than minimised.

Post-graduate courses. He had the honour of giving evidence before the Departmental Committee and was astounded to find the paragraph quoted in their report—a demand for a post-graduate course of training to render a veterinary surgeon efficient to deal with foot-and-mouth disease—and yet, on the other hand, the Board of Agriculture will not permit students of schools in the British Isles to go and see a case of foot-and-mouth disease when a case exists at the very door of the school. He thought that the Diploma of Membership of the Royal College should render a man able to diagnose sheep scab, foot-and-mouth disease, or any other contagious disease, just as he should be able to diagnose a case of spavin, which no one would doubt his ability to do. He should certainly be able to diagnose and treat these scheduled diseases. If he is not, it is the duty of the Council of the Royal College to render him capable; otherwise it will come about that the economic value of the diploma at present being granted will be destroyed in favour of short courses, in some cases of six or seven weeks attendance at a laboratory, without any test at the end to indicate that the man has progressed. They should view with apprehension this *furor* of post-graduate education. To him post-graduate instruction does not imply a re-capitulation of what a man should have learned during his Class C and Class D courses;

but a knowledge of laboratory methods and technique—a development in the modes and methods of research.

He agreed with decentralisation, and thought too much was done in London. He also agreed that the standard of the preliminary examination should not be lowered.

**Examinations.** He must cross swords with Mr. Woods in regard to this matter, and he asked whether educational efficiency was going to be made subsidiary to the financial condition of our schools? That policy had been debated too long. The profession should no more expect to live on the fees of students than any other profession, and theirs was the only one to do so. Grants should be received from public funds, and yet no effort is being made to get that support which is justly ours. The school should be put upon a proper basis. Let them avail themselves of existing endowments and secure what other endowments might be necessary so that educational efficiency will be the first problem rather than financial worry.

Mr. Woods remarked that he had occupied the position both of internal and external examiner, and his experience was that the Universities have no interest in how many students pass. The first question is, "Is this man going to be a credit to our University?" If not, he should not pass. He did not know whether that entered into the ideas of the teachers of schools.

Prof. SHARE-JONES continuing said, where a degree, diploma or medal is awarded for merit in competition it would find its own level when it got before the public, and it is to the credit of a University that keeps its standard up to such a degree that they have a small percentage of passes. The examination should be a searching inquiry as to the course pursued by the student in the intervals between one examination and another. If Mr Woods investigated the highest examinations he would find they were conducted on these lines. There should be external and internal examiners, and one centre for examination.

The PRESIDENT asked Prof. Share-Jones to address himself to the subject matter of the paper and not criticise the person who had spoken before, leaving that to the essayist.

Prof. SHARE-JONES replied that that courtesy was not accorded to him on the occasion of the National Veterinary Association in Manchester. Without reservation he agreed with Prof. Woodruff.

The PRESIDENT said he could take no responsibility for what took place at that meeting.

Mr. LAWSON was of opinion that there are too many schools and that one would be enough. He spoke rather pessimistically of the prospects of students for the Veterinary profession. In regard to the curriculum, he said the Council was doing something now, and he thought there would be no cause for complaint. If there was only one centre for examination the cost would be diminished about 50 per cent. He did not think the time was ripe for the amalgamation of the Benevolent Societies. He had always advocated that veterinary surgeons should seek election on Town Councils and Public Bodies.

Mr. WOLSTENHOLME, in the first place, wished to acknowledge the debt of gratitude due to the Professor for his paper. He sometimes thought the one portal system is one portal system in more than one sense. You get into one avenue, you see things from one point of view, and many things are excluded by looking down this one doorway. The Veterinary profession controls everything, it has its own Act of Parliament and Charter, and is responsible to nobody else. It largely depends upon the outlook of those who interest themselves in the profession as to the direction we go, and largely the felicity with which we travel. One section of the profession would probably be asking for highly educated men whose chief duty in life should be experts in animal

diseases, with knowledge of diseases in the human subject, and that he should use his energies in preventing or helping to prevent the transmission of disease from animal to man, and elucidating causes which produce disease in animals and in man. One eye of the profession would be looking in that direction, or, might he say, looking upward.

Another would be looking downward. If they were medical men they would see that the students in going through the hospitals did much work which might appear objectionable and unnecessary, but which was not so. There are many things necessary that do not need to form part of the curriculum.

Some years ago there was a great outcry that the students should be taught how to handle animals and see to the appointments of a stable, and special teaching was provided and a special examination was given. In his opinion that could be carried a great deal too far; the type of veterinary surgeon wanted now is not the type of the new groom, but the man who is co-equal with the medical man and his highest duty should be in assisting the health of human beings as well as the health of domesticated animals. Having some centre of examination would, he thought, in great measure tend to close the examination.

He was opposed to Prof. Woodruff in regard to the Fellowship diploma. With respect to officers for the Public Health service, they should follow the lines instituted by the medical profession, where candidates for Public Health appointments are asked to produce a diploma to show they have studied specially for that work. Personally he hoped that post-graduate work of a severe character would be undertaken by the men of the veterinary profession, and at the end a diploma pointing out that they had done this work and were capable of doing public health work should be insisted upon.

Mr. SUMNER asked why it is necessary that so much interest should be taken in the retrospect and prospect of the profession. Is all well and on sound lines leading to ultimate advancement? He thought the lines might be modified, not only in regard to teaching but also in regard to examinations. They would agree that the time has come when the veterinary surgeon has gone through a sharp evolution. Probably all had noticed that up to now the preliminary examination would admit to the medical schools, but the time has come when the Medical Council are no longer going to recognise that certificate, and are increasing the standard of the entrance examination.

The Council of the Royal College were much agitated about this, but ultimately decided not to alter their preliminary examination. We are a small profession and he thought the Departmental Committee had been brought into being to see how the standard of education might be raised and more men brought into the profession. There is a shortage of men, and he was uneasy as to what would happen when the Milk Bill and Tuberculosis Order came into operation.

#### REPLY.

Prof. WOODRUFF thanked the members for the flattering way in which they had spoken of his paper. The only recompense he wanted when writing it was that it should be carefully considered, because he felt sure that points needed consideration by the rank and file of the profession. His one point at the beginning was that the profession has the unique position of being responsible for the education of all members, and their discipline, after they became members, and that therefore it is the duty of the rank and file to make themselves acquainted with the current thought and exact position of all these matters so that they might deal wisely and justly with them.

Replying to Mr. Woods in regard to the degree of

glanders and rabies, he said he meant glanders was the greater because the share of the veterinary profession in giving advice resulting in success had been greater.

With regard to tuberculosis they could hardly exaggerate their function at the present time. All avenues by which contagion can get in must be closed. We are well aware of one particular avenue and it is our duty to close it.

As to the Departmental Committee, it was rightly or wrongly without a veterinary surgeon and he was convinced that it was a sign, and not the only sign but one of many, that the veterinary profession is wanting in the influence which it really deserves in the counsels of the nation.

He was sorry that the Royal College had departed from what he considered the interests of the profession in allowing a low standard of preliminary training to be retained instead of advancing with the medical profession. If the schools' interest were lost sight of, and the profession and public interest kept in front, that resolution would have to be rescinded and reversed.

He joined issue that it is the conflict of teachers and examiners which accounts for the delay in revising the syllabus: it was not this alone so much as positive hostility on the part of some members of the Council.

In regard to meat and milk inspection, he said it was not a question as to whether the schools were fit to train if the profession and the Council demand training. If they required training there are abattoirs at the doors, and the school which does not come up to the standard required by a wise Council should not be allowed to go on. He thought there are too many schools for purely veterinary technical subjects, but there might be far more schools for preliminary subjects.

The policy of the profession has been in the past—the profession *versus* the school—the profession *versus* the Board of Agriculture—and in many instances outside vested interests have been allowed to override the interests of the profession. Our policy should be first—public service. Are we qualified to do what the public expect of us? Are we able to produce efficient members of the profession? The schools that cannot survive this test must be allowed to go under.

There are many fields unexplored, and they could only be filled by being ready. If they relied on the schools they would not be ready, but the schools must be kept up to the mark.

Mr. TAYLOR asked the members to show their appreciation in true Lancashire fashion of the kindness of Prof. Woodruff in giving what seemed to be a valedictory address to the profession. He thought that if the profession failed to take notice of some of the warnings pointed out they would suffer.

Mr. ABSON seconded the vote of thanks, and joined in all good wishes for the success of Prof. Woodruff in his new sphere.

The PRESIDENT said he had much criticism to offer on what the Professor had said but unfortunately twice would not allow, and he hoped those members who had not been able to take part in the discussion would appreciate the difficulty he was placed in by having to observe the time limit, as the room was wanted for another purpose.

In putting what he said was his last vote of thanks, he remarked that no vote could have been placed in his hands which would give him more pleasure to put. He had known the Professor for many years, and watched his work, and the only regret he had was that the Professor was going to Australia and that England was losing a man of wide and sound views. Progressive ideas were wanted, and the public interests as well as those of the profession must be looked to.

The vote of thanks was carried with acclamation.

Prof. WOODRUFF replied, and said he would keep in touch with things at home, and on his next visit would be interested to see how far matters had progressed in the profession.

#### CENTRAL VETERINARY ASSOCIATION (IRELAND).

The annual general meeting was held at the Gresham Hotel, Dublin, on the 23rd January. Mr. James McKenny, in the absence of the President, occupied the chair. Several apologies for non-attendance, were read and accepted. Mr. Geo. Dunne's resignation was accepted with regret.

The SECRETARY handed over to the Treasurer the sum of £9 19s. 6d., subscriptions collected by him since last meeting. The Secretary's account of £3 9s. 8d. was ordered to be paid.

The Treasurer's account showing a balance of £36 2s. 1d. was passed. The Treasurer was directed to send a cheque for ten guineas to the International Veterinary Meeting Fund.

A resolution of sympathy with Mr. M. Hedley in his recent illness was passed unanimously. Also a resolution of sympathy with the widow and relatives of the late Mr. Dawson, of Cavan.

The following resolutions were passed unanimously:

(a) That the Secretary be instructed to write to members in arrears, in accordance with resolution passed at Ballinasloe meeting, stating that unless their subscriptions and arrears are paid off at once, their names will be struck off the list of membership of the Association.

(b) That the Secretary be instructed to have the rules reprinted and circulated amongst the members, also a correct list of members.

The TREASURER showed a large amount of money due, and it was decided to revise the list before the next meeting; there being nominally fifty-nine members, of whom only about twenty attended or paid regularly.

#### ELECTION OF OFFICERS.

The following officers were elected for 1913-14:—

*President*.—Mr. B. P. J. Mahony, Maryboro'.

*Secretary*.—Mr. E. C. Winter, Limerick.

*Treasurer*.—Mr. J. F. Healy, Middleton.

*Council*.—Messrs. J. McKenny, Fred A. Heney, P. J. Howard, J. Holland, J. W. Nolans, A. J. Moffett, W. C. Patrick, and M. J. Cleary.

#### NOTES ON CLINICAL CASES.

By FRED A. HENEY, M.R.C.V.S.

Mr. Chairman and gentlemen,—When your Secretary commandeered me to provide some notes for the subject of discussion to-night I could not refuse to comply, knowing well that he is always endeavouring to promote the welfare of the Association, and it was therefore my duty, though no one is better aware than I how inefficient an agent he has selected. I will briefly bring before you a few cases which I have recently observed, for the purpose of promoting a profitable discussion.

#### FRACTURE OF ILIUM—DEATH. SEVERE FRACTURE OF PELVIS.

I submit to you what remains of the pelvic girdle of a bay harness mare. I was called at 8 a.m. recently to see the mare, which I was informed was lying in her box. On my arrival at nine o'clock I found the mare dead, with no external symptoms of the cause. Having had her removed for post-mortem, I found considerable pelvic hæmorrhage, caused by fracture of the shaft of the ilium, involving the vessels of the locality. On ex-

amination of the osseous pelvis, I found that there had been considerable damage done on a previous occasion, the pelvic floor, ischium, and pubis all being fractured, with resultant efforts at repair, during which time the mare had been kept at work, and, as I was informed, with little or no lameness or apparent trouble.

Mr. Heney showed the specimen of the fractured ilium and pointed out the fact that there had been a double fracture, probably two or three months before, involving the ischium and pubis, as repair was going on extensively at one point, and had not started at the other. The fracture of the shaft of the ilium was the later one, and portions of the broken bone penetrating the tissues, ruptured the iliac artery.

#### INVAGINATION OF BOWEL IN A MARE.

This is a condition which I bring before you with a view to obtaining information. I was called to see a colic case, which on my arrival seemed normal. The patient, a draught mare, was resting quietly. In a short time she exhibited severe pain. I administered three ounces chlorodyne in cold water. Not showing any relief, in an hour I gave one ounce Chloral Hydrate. This produced slight drowsiness, but after two hours she was in violent spasm, and died in great pain shortly after. Just prior to death there was a slight hæmorrhage per rectum.

Möller says, "disease begins with a severe attack of colic, may last twelve hours, followed by subsidence of pain, appetite wanting, tympanitis, and discharge of blood-stained mucus, or obstinate stoppage of the bowel occurs. Peristalsis is in complete abeyance, pulse frequent and small, temperature seldom rises. Per rectum invaginated portion may be found as a cord like painful

swelling with inclination to lie on back." In this case many of these symptoms were absent.

#### INGUINAL HERNIA.

I had three interesting cases of this condition, interesting because out of five puppies (Pekinese), three dogs had the trouble. They were brought to me at seven weeks old, and having seen that the rupture was extensive, and in two of them bilateral, decided to operate immediately.

I gave 30 grs. Chloral Hyd. in about 11 120, H<sub>2</sub>O, and having prepared the seat of operation, made a small incision over the inguinal canal, and with a little neat manipulation, reduced the hernia, placing my finger over the canal. I sutured deeply the external ring and skin. Recovery in both cases was uneventful. The pups were sold at £5 each, subject to operation. Since then they have done well.

The essayist also spoke of an interesting case of bilateral inflammation of the ligamentum nuchæ, with considerable swelling in a thoroughbred mare, which yielded to the usual treatment of opening up and removing the debris.

The effect of nuclein in eczema and other skin affections was also spoken of.

The production of Anaesthesia by Chloral Hydrate *per orem* was also debated, the essayist reporting favourably upon it in a number of cases.

Then followed was an animated and prolonged discussion of a very interesting and instructive nature, in which Messrs. McKenny, Howard, Winter, and Healy took part, and the Meeting broke up at mid-night with a hearty vote of thanks to the essayist and chairman.

#### DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
GR. BRITAIN.													
Week ended Feb. 1	10		10				3	14	78	170	12	29	278
Corresponding week in	1912	30	37						126	246	14	72	723
	1911	24	26				5	6			28	31	252
	1910		31				7	16			22	20	199
Total for 5 weeks, 1912	60		71				16	75	418	994	57	175	2259
Corresponding period in	1912	122	139				12	31	774	2037	77	301	3263
	1911	109	122				23	69			151	172	1775
	1910		183				32	98			160	102	690

† Counties affected, animals attacked: Essex 3, Lancaster 1, London 10.

Board of Agriculture and Fisheries, Feb. 4, 1913.

IRELAND. Week ended Feb. 1				Outbreaks				Outbreaks			
				...	...	...	...	12	12	...	25
Corresponding Week in	1912	...	...	...	...	...	...	3	24	2	3
	1911	...	...	...	...	...	...	3	20	2	4
	1910	...	...	...	...	...	...	1	17	3	73
Total for 5 weeks, 1912	...	...	...	...	...	...	...	49	89	24	124
Corresponding period in	1912	...	1	1	...	...	...	11	110	13	154
	1911	...	2	2	...	...	...	11	116	19	285
	1910	...	2	2	...	...	...	13	117	5	156

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Feb. 3, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

ANNUAL REPORT OF VETERINARY OFFICER INVESTIGATING CAMEL DISEASES FOR THE YEAR ENDING 31ST MARCH, 1912. [Abstract.]

*The work of the office during the Year.*—The greater part of the first three months of the official year was spent in camp at Sohawa; the building was made habitable by 4th July, from which date I was able to use it, although it was not completed until several months afterwards. On that date my head-quarters were officially transferred from Lahore to Sohawa.

TREATMENT OF SURRA.

At Sohawa, experimental treatment for surra in camels has been carried on during the whole year. Early in the year it was recognised that cures had been obtained and consequently trials of curative treatment were pushed forward on a large scale. A fair amount of success has resulted by methods applicable to Camel Corps conditions.

From 2nd January to 17th March, 1912, a long tour was made through Sind and a short one in Baluchistan.

Much experience has now been gained of the diagnosis and treatment of the general diseases of the Indian camel and his lamenesses, fractures, injuries, etc., but an account of these is hardly suitable to an annual report. I have only included the treatment of the two great camel-plagues—surra and mange—with very few remarks on any other conditions; and have added a short report on the tour made in Sind and Baluchistan.

*The Silladar Camel Corps.*—The percentage mortality calculated from mortality returns sent in is as follows:—

50th (Campbellpur)	12·2	54th (Lahore)	12·6
51st (Rawalpindi)	17·2	55th (Montgomery)	7·2
52nd (Jhelum)	8·2	56th (Montgomery)	9·4
53rd (Sargodha)	11·7	57th (Multan)	6·9

The figures for all the corps together for the last four years are here given:—

Year ending 31st March.	Average Mortality.	Cases diagnosed.
1909	22·3 per cent.	431
1910	18·6	333
1911	13·3	254
1912	10·7	130

Of the 130 cases of surra, 27 have been cured in the course of the experiments on treatment at Sohawa.

The decreasing mortality of 10·7 per cent. is due chiefly to the increasing interest which is being taken in the camel corps particularly with regard to avoidance of surra, but camels should never have been sent to Amritsar in the surra season. The season has not been an unhealthy one, but 50 camels out of the 130 surra cases were in the 51st Camel Corps.

It cannot be too strongly emphasised that the improved health of the camels will not be maintained unless the measures against surra (avoidance of fly-zones; grazing in small groups when the latter is unavoidable; detection of surra by routine examinations of blood carried out at all seasons of the year; and precautions against purchasing surra) now being taken are continued with the same vigour as before.

*The Curative-treatment of Surra in Camels.*—Experiments have resulted in a degree of success and altogether about 30 camels cast from the Camel Corps on account of surra have been cured at Sohawa, and 17 of them have already been returned to the corps from which they came originally. These cures have been obtained by different methods, most of which methods only give a minority of cures. One of them however has so far given 62 per cent. of cures, and another over 50 per cent.; it is perhaps safer to say that we may now hope

to cure about half the camels which are found with surra in Camel Corps and which still retain fair condition; and about one-third of those which are emaciated.

When a first treatment fails, it is possible to apply a second, provided the camel is in a condition to stand it, and this should increase the total percentage of cures considerably; 5 out of the total of 30 camels cured in Sohawa were cured by treatment applied after a first, and sometimes a second, had failed to cure.

The best method of treatment consists of judicious combinations of the following compounds:—(1) Atoxyl or Soamin (administered subcutaneously or intravenously). (2) Tartar emetic (injected intravenously). (3) Either Sodium Arsenate given in drench, or Arsenious Acid in solution given intravenously. It has been found that a gradual and lengthy treatment is seldom attended by accidents, but of course it is necessary that the camel submitted to it should be in pretty good condition. A treatment of this kind is too much for thin animals, which die of exhaustion. As one endeavours to concentrate treatment, so one begins to get a proportion of accidents such as nephritis and peritonitis. In the shortest treatment, lasting only 9 days, one may get 35 per cent. of cures and 30 per cent. of fatalities; the degree of tolerance for big doses of Arsenical compounds varies so greatly among camels. On the other hand, a camel in wretched condition, if it possesses a fair tolerance to Arsenic, may come safely through a short treatment when a longer one would certainly wear it out.

Sodium Arsenate given by the mouth sometimes causes severe diarrhoea, but it has been found that in such cases Arsenious Acid given intravenously can take its place in the longer treatments, acting as well as regards curative properties, and without causing diarrhoea. The best treatments cost Rs. 4 or Rs. 4-8-0 in drugs per camel treated.

I do not think any of the treatments will often prove applicable to the camel of the private owner, but they are applicable wherever camelmen are more or less controlled by authority and when a Veterinary Assistant's services are to be had; e.g., Camel Corps and all Government camels.

I am convinced from actual experience that the average camel-owner could rarely be made to understand the necessity of bringing his camel at definite times for the doses, and any irregularity in dosing means failure. Some day, perhaps, some method may be arrived at which will cure Camel-Surra by a single injection; until then the general treatment of surra in camels outside Government employ in the districts is not likely to be on a very large scale.

*Choice of Treatment.*—This depends chiefly on the condition of the camel and sometimes also on age and height. The height I go by is that at the withers on a line with the elbow-pad.

If the camel is in medium condition, with some hump, or well filled out though with but little hump, "668 treatment" is the best to apply. It costs about Rs. 4-8-0 per camel treated, but the doses require grading according to the age and height of the camel. Although I have had success at the rate of 62 per cent. of camels treated, accidents were frequent, viz., 22 per cent. [Accidents were rare in subsequent practice.] The remaining 16 per cent. relapsed subsequent to treatment. If, however, the plan of stopping the treatment is adopted when great intolerance to the drugs is shown, fatal accidents are few, and the camel can be treated again later; this plan has been adopted with success, the camel standing the second treatment well and being cured of surra. The "668 treatment" requires about 25 grammes of Soamin; it covers a period of 23 days.

If the camel is really emaciated with acute surra, his only chance of successful treatment is by a short method, viz., "178 treatment." An emaciated camel cannot



stand a long treatment. "178 treatment" is short and violent, covering only 9 days; it has given 35 per cent. of cures, 35 per cent. of relapses and 30 per cent. of fatal accidents. It costs in drugs Rs. 2 per camel treated. [Subsequent practice giving better results.]

If the camel is emaciated but only showing short mild paroxysms of fever separated by long intervals, it would be better to feed him up for 4 to 6 weeks and then subject him to "668 treatment," than to put him at once on "178 treatment" which is a "last resource."

*To be noted before treatment is applied.*—It is absolutely essential that throughout the treatment the camel should receive complete rest and a first class ration so that he can "fill his belly" every day. A good level grazing-ground is a great advantage, but not essential if there is an abundance of green fodder available. Even where there is good grazing a ration must be given as well. In addition it is a good plan to give occasional balls of ata and gur when the camel is not feeding well. The treatments make demands on the animal's strength, but with good feeding during treatment this is soon made good.

When "668 treatment" is used the owner must be warned of the possibility of accident from poisoning; and when "178 treatment" is applied, he should be told that the method almost amounts to a "kill or cure."

It will not be worth while to treat camels for surra which are—Suffering from chronic cough (nearly always due to lung abscess); from pneumonia; or are lame from chronic cause; nor old camels in poor condition.

The first dose must always be given when trypanosomes are present in the blood, and preferably near the beginning of a paroxysm.

A surra camel which was a bad "shiverer" before treatment was cured of surra and the shivering was vastly improved; I think therefore that it is quite worth while to treat any surra camels which show this symptom.

*Rules for actual dosing applicable to all the methods of treatment.*—The evening is the best time for dosing, as the effects of any temporary depression due to a dose will pass off in the night. During the day, the doses can be weighed so as to save time; the Tartar emetic, Sodium arsenate and Arsenious acid may be dissolved so as to be ready, but the Soamin must not be dissolved until just before its administration. It must be realised that doses must be exact; so that weighing and administration require care.

Subcutaneous injections are conveniently done under the loose skin either in front of or behind the shoulder. The point of the needle should be detectable just below the skin before injecting.

Intravenous injection is easy in the camel owing to the immense size of the jugular vein. The most convenient spot is opposite the larynx; the vein is easily "raised" by pressure applied at the side of the lower surface of the neck below this point. It is best to have the neck flexed backwards until the poll touches the withers.

#### "668."

In treatment the dosage was graded according to the camel's heights (at withers in a line with elbow pad) and ages, as follows:

*Full doses.*—All camels of 6 years of age or more which measured 6ft. 9in. or over in height.

*5 per cent. less than full doses of Soamin and Tartar emetic.*—Camels of 6 years of age or more, which measured 6ft. 7in. to 6ft. 9in. in height. Also any 5-year-olds of 6ft. 9in. or over in height.

*7½ per cent. less than full doses of Soamin and Tartar emetic.*—5-year-olds under 6ft. 9in. Also all camels of 6 years or more which measure 6ft. 7in. or under in height.

[A more accurate method of estimating dosage is being worked out. This is necessary owing to great variations in the shape of different types of camel].

The dosage is as follows:

Day.	Drug.	Full Dose.	
		Grammes.	Grains.
1.	Soamin subcutaneously	5	77
2.	Tartar emetic intravenously (injected slowly)	0.5	7½
3.	Arsenious Acid intravenously (injected slowly)	0.6	9½
5.	Soamin subcutaneously	6.0	92
6.	Tartar emetic intravenously	0.5	7½
7.	Arsenious acid intravenously (4 days' interval)	0.6	9½
11.	Soamin subcutaneously	6.5	100
12.	Tartar emetic intravenously	0.5	7½
13.	Arsenious acid intravenously (8 days' interval)	0.6	9½
21.	Soamin subcutaneously— either ... or ...	6.5 7.5	100 115
22.	Tartar emetic intravenously	0.5	7½
23.	Arsenious acid intravenously	0.6	9½

If a camel has shown severe signs of intolerance or poisoning which have not disappeared before the 11th or 21st day of treatment, it is advisable to omit or delay the rest of the treatment, and allow the camel to recover. Similar cases have shown themselves cured of surra in my experiments although they had not had the full treatment. Others have relapsed, but were cured with a second treatment. There are three forms of poisoning which may occur in camels exhibiting an intolerance to Arsenical treatment by "668 method."

They are: (i) Paralysis of third and fourth stomachs leading to impaction if untreated. Occurs less often with green fodder than when missha bhusa has to be used. (ii) Acute congestion of kidneys. Curable in most cases. (iii) Peritonitis. Incurable.

In the case of the first two, there is an unsteadiness or difficulty rising or sitting; staggering gait: tetanised condition of hind legs. If the dung is soft and normal, the case is one of acute congestion of kidneys and the animal only requires good nursing and restraint until he recovers his normal power of movement; sometimes nephritis supervenes, but most of the cases recover.

If the nervous symptoms occur when the dung is in hard dry pellets the animal must be purged at once 2 or 2½lb. of Mag. sulph., otherwise complete stoppage will take place from impaction of third and fourth stomachs; the nervous symptoms decline when the purge has acted. Sometimes in four or five days another purge of 1½lb. Mag. sulph. is necessary. Most of these cases recover if the remedy is applied early on detecting the change in the dung. Until the purge has acted, the camel should receive little food, but plenty of water even if he refuses to drink it of his own accord.

Peritonitis generally occurs suddenly; sometimes straining is noticed several days beforehand, but this is not followed by peritonitis in every case. The chief symptoms are severe abdominal pain, with characteristic thoracic respirations, a distinct pause before each expiration, and (unlike other painful diseases) the belly is not "tucked up." There is no cure, and the animal ought to be shot as soon as possible.

In "668 treatment" signs of constipation or of incoordination of movement should always be watched for as a routine by the veterinary attendant from about the



8th day of treatment until five days after treatment is finished.

"178."

The doses are the same for all camels of four years of age upwards.

Day.	Drugs.	Grammes.	Grains.
1.	Sodium arsenate by mouth	3.575	55
2.	Soamin subcutaneously	5	77
3.	Tartar emetic intravenously (inject slowly) (4 days' interval)	1.5	23
7.	Sodium Arsenate by mouth	3.575	55
8.	Soamin subcutaneously	5	77
9.	Tartar emetic intravenously	1.5	23

The accidents in this treatment are of a similar nature to those of "668 treatment," but are more frequent, and nephritis is not uncommon.

*After Treatment.*—When a treatment fails to cure, relapses usually occur between two and seven weeks, but one or two cases did not relapse until eighty-eight or eighty-nine days after the last dose. The camels require some inspection therefore during the three months following treatment, and should be kept within reach (and under reasonable segregation if the season is between 15th March and 15th November) until then. The camelman should watch for and report any sign of fever, which should then lead to examination of the blood for trypanosomes.

Cases which relapse are in practice found easier to cure at second trial, provided the camel is in a fit state to stand a second treatment. If the second treatment fails, a third can be applied; I have had cures on the third trial.

Camels in good hump soon recover any slight loss of condition caused by the treatment; those in medium condition before "668 treatment," take longer as a rule. In practice many improve during treatment. Emaciated camels cured by "178 treatment," will take several months to get into working condition. After treatment no camel should be worked for a minimum period of one month, and generally longer, according to the case.

*Remarks.*—I have only treated one cow-camel, but in spite of the relatively light weight of dachis, I recommend, at present, the same dose as for males. Experience may show whether it should be decreased or not.

I have no data as to dosage for camels under four years of age. The difference between the dosage which cures and that which kills is not big enough to justify fixing the doses by guess work. It must be left to experience.

During the treatment for surra, the camels may be kept together in one herd, provided they are not placed in it until trypanosomes have gone from the blood. In practice (as apart from experiment) microscopic examination of blood is only necessary for a few days, viz., to find out when to give the first dose, and to note when the trypanosomes have dispersed (generally within 48 hours of first dose). Trypanosomes do not re-appear during treatment when the instructions given are carried out.

The number of camels used in experiments on which the above recommendations for treatment are based, was, of course, limited, and it is desirable that a clear written history of the treatment of every animal be kept so that the results may be scrutinised and faults corrected. [By treating relapsed cases over again, a total of over 70 per cent. are curable, probably more].

A camel which, subsequent to treatment by the "264" method, had gone 498 days under daily blood-examination, without relapse, and whose blood had also been found innocuous to a guineapig, was inoculated with 15 c.c. blood, containing numerous trypanosomes, obtained direct from the jugular vein of a camel suffering from surra. A control inoculation was also made

into a guineapig. After an incubation period of four days, trypanosomes appeared in the blood of the camel and rapidly increased, until on the third day they were swarming. The control guineapig also got the disease.

A camel cured of surra by drugs is, therefore, not immune if subjected to a fresh infection.

### Charge of Cruelty to a Horse.

At the Elham Bench, held at Seabrook (Kent), Henry Turner was summoned for causing a horse to be worked in an unfit state, and Geo. Marsh was summoned for working it. Mr. G. W. Haines appeared to prosecute on behalf of the R.S.P.C.A., and Mr. V. D. de Wet defended. It was stated that the animal belonged to the Folkestone Waterworks Company.

Sidney Bennett, an Inspector of the R.S.P.C.A., said that on December 12th he was in Tale Kiln-lane, Cheriton, when he saw a bay gelding attached to an empty van going towards the Waterworks. The animal was rambling along, so witness stopped it and examined it. He found it very lame in the near hind leg. It was an aged horse, but in very good condition. When witness drew the driver's attention to the lameness he said that it was like it in the mornings, but it wore off in the course of the day. Upon inspecting the animal witness found it to be suffering from an enlargement on the hock, while the tendons were thick, swollen, and contracted. There was also ringbone. The shoe was very much worn at the toe, indicating that the animal had walked on its toe for some time. The fetlock was heated. In witness's opinion the horse was in pain, and totally unfit for work. When he told this to Marsh the latter replied: "I know it limps a bit; it's been like it for some time; Mr. Turner is responsible for it—he's in charge of the horse." Next day witness went to the Waterworks with P.C. Kenward and saw Mr. Turner, who said that he had had Mr. Eve to see the horse in May, and that he then said the animal was only fit for the kennels. Defendant also said that the animal was turned out in a field, but as it afterwards got better it was worked again.

Cross-examined by Mr. de Wet: Witness had had a complaint regarding the animal.

Mr. de Wet: If I put a name to you would you disclose it?

Witness (after some hesitation): Well, I can see no harm in doing so.

Was it not Miss Morris?—Yes.

P.C. Kenward corroborated as to the visit to the Folkestone Waterworks.

Mr. Chas. Gillard, veterinary surgeon, of Folkestone, deposed to examining the horse at the Folkestone Waterworks. It was extremely lame in the near hind leg, owing to very long standing trouble. The tendons were contracted and extremely hard, thus effecting a shortened leg, which caused it to go over the fetlock. There was also a bone enlargement, though he would not call it a ringbone. It was a chronic lameness, and the animal would never be sound again. The horse was bound to be in pain unless it took its own time in going along.

Mr. H. B. Eve, veterinary surgeon, who appeared on subpoena, said he attended the horse on May 25th at the request of the Folkestone Waterworks Company. It was then very lame indeed. Witness confirmed generally the evidence given by Mr. Gillard. He told the defendant Turner at the time that the horse was not fit for road work, and that it ought to have the old age pension or go to the kennels.

This concluded the case for the prosecution.

Mr. Henry Turner stated that he was engineer at the Folkestone Waterworks. They had had the horse about ten years. After Mr. Eve was called in to it they had

it turned into a field, and the leg was fomented for ten weeks. Subsequently it got very much better, so he used it for light work. It had not pulled more than 5cwt. If witness had had any idea that the horse was in pain he would not have sent it out. He treated the horse as one of his own family.

The Chairman: But your family is only two-legged; this is four-legged.

Defendant: It's only three-legged according to the evidence. (Laughter).

The other defendant next went into the box, and said that he had received instructions to always let the horse go along in its own way. He was doing so on the occasion in question.

Mr. Hogben, veterinary surgeon, said that the horse had no traces of inflammation. When it was moved it went stiff at first, but got better as it went along. It was difficult to say if there was pain or not. It would not have been cruelty to work the horse on land, but it would have been affected on a road.

The Bench eventually fined the defendant Turner the sum of four guineas and costs (£2 16s.), while Marsh was fined 5s.—*Folkestone Herald*.

### The "Old Highland" Pony.

Writing to *The Scottish Farmer*, Mr. Jas. Cameron, of Scotstoun, says:—"What were the foundation elements of the Highland pony? Perthshire and South Inverness-shire glen men who were over their three score and ten in the sixties of last century were fond of referring to the 'old sort' bred by their fathers, grandfathers, and great-grandfathers. As far back as I can remember, old tenants in the glens of Atholl and Breadalbane had specimens of what were accounted to be the pure Highland breed.

The most characteristic of those glen animals in the sixties were of a stamp by themselves, with a sharpness and gameness in their heads, ears, full lustrous eyes, and open nostrils, which one almost fails to see in these days of ours. There was a suggestion of Eastern blood in the heads, but the owners of the animals never made any references to Arab or Barb when giving a redd up to family traditions. There were odd words of praise to N' Stallan dubh or N' Stallan odhar (the black stallion or the dun stallion) kept by So-and-so's father or uncle in the early decades of last century, but if an inquiring boy, such as myself, asked what these were, the reply was, 'Ou, just the real old sort.' Looking back, my impression is that the main run of Perthshire and South Inverness-shire animals, which were held to be indisputably genuine in the early sixties of last century, averaged no more than 14 hands. The suggestion that these were from a blend of Clydesdale and Highland blood is far-fetched, to say the least of the matter. I very much prefer even the vague references to the 'old sort' made by men who were born somewhere between 1790 and 1810, or a little later. . . . The Highlands are very much in need of a stout, hardy, active general purpose pony of the Herd Laddie type—if they can find it—and such a type deserves something better than starvation and dirt."

"Perthshire," writing to *The Scottish Farmer* of Jan. 25th, says:—"The West Country pony has not the bone for a Highland pony. The real type of Highland pony is to be found in a Shetland pony, magnified to between 14 and 14.2 hands high. At one time, when the small holdings were being worked in places like Ballinreich, Strathbraan, Auchnafauld, Glenquoich, etc., there would be about 100 of these ponies or garrons to be found, but now you could count the number on your fingers. These ponies were used to work the crofter's ground, to cart peats, and also to go to the neighbouring towns for goods, and to the mill for meal. They were very sure-

footed, and many of them were even wiser than their owners.

It will not pay to breed ponies and sell them either as foals or yearlings at four and five guineas each. The dams at the Ibert Farm, near Creiff, have to be fed, and this cannot be done for less than £9 per annum. The keep of the foal or yearling must also be added.

### The Treatment of Horses.

Mr. T. B. Hamilton, M.R.C.V.S., Glasgow, gave an address on "The Care and Treatment of the Horse," at the first of a series of lectures, under the auspices of the Animals' Protection Association, on Tuesday night, Jan. 28th, in the Tinplaters' Hall, Glasgow. Professor John R. McCall presided over a large attendance. Mr. Hamilton spoke of the responsibilities of the carters when in charge of horses, and gave them advice on the general treatment of the animals during working hours. Speaking of the feeding of horses, he advocated that every animal should be fed at least an hour before working, and should be watered before being fed. He referred to the handling of horses by lads in charge of vans, particularly to tugging at the reins and the use of the whip, remarking that the whip was an instrument of value in the hands of a man who knew how to use it, but in the hands of one who did not it became an instrument of torture.

### Veterinary Inspection— Clydesdale Horse Society.

A prolonged conference was held between the Board of Agriculture for Scotland and a deputation of the Council of the Clydesdale Horse Society in Oct., 1912. The points raised at the Conference, and on which opinions were ventilated, were dealt with in detail at a meeting of Council held on the following day. The net result from this conference and discussion has been that the standard of veterinary examination for the Register of the Board of Agriculture for Scotland has been made uniform with the standard of examination for the Register of the Board of Agriculture and Fisheries, and the panel of veterinary surgeons framed by the Scottish Board has been submitted to the Council of this Society for their observations.—*N. B. A.*

### Magistrate and Veterinary Surgeons.

At Marylebone a case of alleged cruelty to a horse was before the Court in which the veterinary surgeon called by the police said the animal was lame, while the surgeon for the defence declared that it showed no sign of lameness.

Mr. Plowden: I foresee I shall have to try these cases without invoking the aid of any veterinary surgeon. They don't help the case at all; they only tend to puzzle and mislead the Court. Yesterday I had a case where eminent surgeons on either side gave diametrically opposite views about a horse.

One of the veterinary surgeons remarked that the same thing occurred in the medical world.

Mr. Plowden: I daresay, but I am not so much concerned about the medical world here as I am with veterinary surgeons, who are constantly giving evidence and who really do not give any guidance to the Court at all. The costs of veterinary surgeons are considerable and press very hardly on the persons who have to pay them; and, really, if they are not going to be of any value to the Court I shall have to dispense with them and trust to my own judgment and observation.

The owner of the horse in question was ordered to pay 23s., the costs of the veterinary surgeon for the prosecution, and the driver of the horse was fined 5s.

**Parasitic Mange—A Prosecution.**

At Needham Market, Charles Henry Burton, farmer, Willisham, was summoned for failing to give notice to the police of a horse affected with parasitic mange at Willisham on the 28th November. Mr. Claud Marshall defended.

Supt. Taylor said that it came to his knowledge that the defendant's horse was suffering from what was believed to be parasitic mange, and he informed Inspector Tucker, an officer who had a great deal of experience in cases of this disease, who went with a constable to see the animal. Expert evidence would be given that it was this disease, and he thought the Magistrates would be satisfied.

Inspector W. John Tucker, of the R.S.P.C.A., stated that on November 28th he visited the defendant's premises at Willisham, and there saw two young men in a field working two horses attached to a plough. He noticed a dark bay mare suffering from parasitic mange. The parts affected were the head, wither, front legs, shoulders, the flanks, the root of the tail, and the hind legs all down the inside.

By Mr. Marshall: The mare might have been suffering a fortnight but not four or five months. He would not regard the case as a slight one, and did not know that feeding on beans would cause a horse to lose hair.

P.C. Robt. Howe bore out the evidence of the previous witness, and stated that on December 1st he saw the defendant and asked him why he had not reported the matter to the police. He replied "I did not know it had the mange, and if I had known I did not know I had to give notice."

Mr. Henry Phillips, veterinary surgeon, said he saw the bay mare on the 29th, and gave a certificate to the defendant to the effect that it was suffering from parasitic mange. Horses were liable to three manges, of which two were notifiable.

By the Chairman: The third was infectious, but he could not say why it was not notifiable.

The Chairman: How could anyone, who is not an expert, judge whether his animal has mange or eczema?

Witness: I don't know quite how any man without experience is supposed to know the difference.

After a long cross-examination as to the difference between the parasites of one mange and the parasites of another, the Chairman pointed out that the defendant was summoned for having a horse suffering from the disease, or suspected of suffering from it.

Mr. Marshall: The question arises as to who suspects. Suppose my client didn't suspect?

\* Alf. Frank Castle, F.R.C.V.S., assistant to Mr. Phillips, deposed to examinations, which revealed two manges: he had no doubt whatever.

Mr. Marshall said that the defendant purchased the mare in June, when her legs were scurfy. Defendant thought nothing of the scurfiness, and until these proceedings were instituted it had never occurred to him, or been suggested to him, that the mare had the mange.

The defendant, on being examined, stated that he did not know there was a notifiable mange. When horses were put on beans the hair came off somewhat. The mare had three inspections in six months, by two veterinary inspectors, and he relied on them.

Mr. Horace Roberts, F.R.C.V.S., deposed that two months ago he was called to examine an animal suffering from lameness, and noticed the bay mare suffering from scurf. Had he seen mange he would have at once advised the owner to report it. Two months ago the mare was not suffering from either of the parasitic manges mentioned in the Order. At a later examination he found it suffered from "leg" (or symbiotic) mange. It appeared to him to be a case of old, long-standing leg mange. Symbiotic was a skin disease.

The Chairman said that the Bench must convict the defendant for making no notification: if they did not the Order might be a dead letter. They did not wish to inflict a severe penalty, for defendant had some reason for considering it unnotifiable. He would be fined 10s. and costs (£2 14s. 6d. in all).

Defendant: I have got no money; I am pressed. Can I appeal?

Eventually defendant was allowed 14 days, or in default one month.—*The Evening Star* (Ipswich).

**Anthrax and Shoddy.**

An inquest has been held in Bradford on the body of Herbert Denby, 32, who died from anthrax.

Denby had been employed at the works of A. Crossland and Co., shoddy merchants, of Bradford, and in the course of the evidence Samuel Crossland said that the shoddy they received was waste from under the cards and had previously been "willeed." They received waste from firms which manipulated dangerous wools, but that was sent direct to the station and was sold into Kent for use as manure. The dust and dirt from the waste which his firm treated were also sent away for a similar purpose.

The Coroner asked Dr. Eurich whether there was any relationship between alcoholic poisoning and anthrax, and Dr. Eurich replied in the negative.

The jury found that Denby died from anthrax. They added that the conditions under which he worked were unsatisfactory, and they recommended the application of compulsory rules to work of this kind, similar to those relating to wool. They also recommended that something should be done to trace the ultimate disposal of wool refuse and dirt.—*The Times*.

**Foreign Voting Papers.**

The following name has since been added to the list published last week:

CROWHURST, JAMES, Canterbury, Proposed by: T. A. Huband, E. L. Dixson, T. C. Toope.

We are informed by the Agent-General for New South Wales that he expects shortly to receive particulars of the conditions of appointment to a Lectureship of Veterinary Anatomy, Veterinary Surgery, and Obstetrics in the University of Sydney. The subjects are to be taught in accordance with the requirements of the regulations of the Royal College of Veterinary Surgeons, from the members of which Institution it is expected that applications will come. The salary attaching to the post is £600 per annum and £100 will be allowed for travelling expenses if the candidate appointed should come from Europe—the lecturer to enter upon his duties not later than 1st July, 1913.

Applications on this side must reach the Agent-General not later 26th March.

**Personal.**

Dr. GILRUTH, Administrator of the Northern Territory, has established a farm for horse-breeding in the Territory. This action is an indication of the Administrator's faith in the new Province as a centre for raising horses. The agricultural, pastoral, and industrial outlook is generally sound and promising.

Lord NORTHBROOK, President of the Royal Agricultural Society, has received intimation that His Majesty the King will, on Friday, July 4th, visit the Society's 74th annual show, to be held at Bristol.

Ten years ago it was an unheard of thing to employ veterinary surgeons for meat inspection purposes in

this country. Any rule of thumb inspection was considered sufficient. A few worthy health pioneers led by Councillor Hy. O'Neill, M.D. B.L., J.P., were not satisfied with what was going on, and about four years ago they decided to ask the Corporation to appoint a veterinary surgeon for the purpose. Mr. J. A. Jordan, M.R.C.V.S., was chosen out of about 30 starters. He had been with the Department of Agriculture for several years before his second coming to Belfast, for he is a Belfast man, born and bred, of old Huguenot stock. My readers will know him better when I mention that his father was manager for the late John Robson, senior, for half a century.—*The Ark*.

### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Feb. 4.

#### SPECIAL RESERVE OF OFFICERS. ARMY VETERINARY CORPS.

S. E. Holmes to be Lieut. (on probation). Dated Feb. 5.

### OBITUARY.

MATTHEW HEDLEY, F.R.C.V.S., Dublin.

Graduated, Lond: April, 1877, F. July, 1882.

Mr. Matthew Hedley, Chief Veterinary Inspector to the Department of Agriculture in Ireland, died on Friday, January 31st, at his residence, 6 Royal Terrace West, Kingstown. Mr. Hedley was one of the best known members of the profession in this country. Possessed of the highest qualifications for his work—great skill, considerable organising ability, he was eminently fitted for the responsible position which he held under the Department. During recent months his name came under the notice of the public more prominently than at any other time during his long and useful career. When the presence of foot-and-mouth disease in this country was first suspected last year, Mr. Hedley set quickly to work in order to locate the outbreak. In a short time he was successful in this, and he then threw himself ardently into the task of suppressing the disease before it could spread through Ireland. His staff of inspectors were soon travelling through the provinces to carry out his directions; preventive orders were issued, and every measure that his wide experience could suggest was taken to save the cattle trade from the loss consequent upon an entire and prolonged dislocation. He did not spare himself in this work. For months he was at his post almost day and night, and the strain on his constitution must have been great, the more so as he was not a robust man. He had had previous experience of the disease, at the time of the former outbreak in Ireland thirty years before, and this assisted him in his endeavour. His zeal and determination—rewarded before long by the checking of the disease—did not pass unrecognised by his superiors. Mr. T. W. Russell, on several occasions, in the House of Commons, spoke of the services rendered by the Chief Veterinary Inspector. To Mr. Hedley's vigilance and supervision during this trying period, the farmers of Ireland owe the present immunity of their cattle from the disease. Now that safety is restored, and the cattle trade is normal—in this respect, at least, he has passed away; and those who watched him during the crisis cannot doubt that his devotion to duty hastened his end.

The funeral took place on Monday last from his residence to Dean's Grange Cemetery.

The chief mourners were:—Mr. H. J. Hedley (son), Mr. Learoyd, Liverpool (step-brother), Mr. H. P. Legg, Leeds.

The service was conducted by the Rev. Canon Dowse, M.A., assisted by Rev. T. Pearson, B.D. Afterwards a short Masonic address was given, and the brethren fired eleven muffled volleys, and cast sprigs of acacia.

The following Masonic deputation represented the Grand Lodge of Ireland: Messrs. W. J. Chetwode Crawley, LL.D., Grand Treasurer; Oliver Fry, representing Grand Lodge, Minnesota; J. G. Powell, Sec., Victoria Fund; W. F. Wells, Grand Lodge, New Jersey; Thomas Butler, representing Grand Lodge, Georgia; John Parkinson, representing Grand Lodge, New Zealand.

The following deputation represented the Meredith Lodge, No. 388, and R.A.C.C.: Messrs. J. J. Grey, C. D. Best, R. T. Dawson, F. Healey, G. F. Healy, J. M. Lewis, A. F. Hooper, T. Morton, R. J. Savage, S. Sharpe, H. T. Pemberton, James Smith, Rev. T. D. Pearson, B.D., Sir Thomas Robinson, A. Miller, G. E. Haines, A. L. Chapman, Rev. R. Miller, J. F. Laurence, H. K. T. Preceptory (153), W. R. Odbert (93), and Gerald Keon.

There were also present: Dr. H. G. Smith, representing the Right Hon. T. W. Russell, M.P., absent in London; Messrs. T. P. Gill, R. Cantrell, I.S.O.; William Dalton, John T. Byrne, M. F. Boyle, James Coleman Mahoney, Herbert M. Odbert, Alfred Werner, Henry Pemberton, J. T. Talbot, J. Knight Hazley, James Talbot Power, James M'Kenny, M.R.C.V.S.; E. Richardson, M.R.C.V.S.; Ed. Finucane, M.R.C.V.S.; M. Mitchell, Gavin Low, H. J. O'Donnel, Philip MacNulty, S. W. Haffield, M.R.C.V.S.; J. H. Norris, M.R.C.V.S.; J. D. Daly, J. P. Walsh, Department of Agriculture; Henry Conyngham, R. S. Conyngham, Thomas J. Hayes, Royal Dublin Society; D. S. Prentice, M.R.C.V.S., Finlay Kerr, M.R.C.V.S., F. Kerr, (jun.) George Elliott, J.P.; J. O'Brien, Charles Read, Sir Christopher Nixon, Bart., Professor Mettam, M.R.C.V.S. (representing the Royal College of Veterinary Surgeons and the Governors of the Royal Veterinary College of Ireland), J. V. Daly, M.R.C.V.S., R.I.C.; Robert Bruce, Royal Dublin Society; George Newsom, C. D. Best, R. Triphook Lawson, W. Cathead, v.s., T. J. Winter, R. St. George Lyon, J. A. Cooke, Falkner C. Mason, M.R.C.V.S.; C. A. Inman, Geoffrey Lyons, Mullingar; Dr. Lapper, Dr. Cecil Lapper, H. H. Newton, A. L. Chapman, H. S. Findlater, Herbert Gresham, S. H. M'Comas, W. A. M'Comas, E. N. Dunlop, J. P. O'Reilly, M.R.C.V.S.; J. Purdy, W. J. Clifford, Port and Docks Board; J. F. Lough, A. N. Sumerling, R. H. E. Disney, T. B. S. Disney, Arthur G. Lamphier-Bennett, W. T. Duke, Walter Brown, W. H. Wilkinson, M.R.C.V.S.; Fred A. Heney, M.R.C.V.S.; Andrew Watson, M.R.C.V.S.; C. Jones, Rev. Robert Miller, Thomas Carroll, M.R.I.A.; Dr. Roantree, John Holland, M.R.C.V.S., Athy; Colonel B. R. Hawes, Rev. C. W. Welland, H. W. Robinson, Alfred Miller, J.P.; Geo. E. Haines, R. B. Freeman, R. H. Lee, Claud J. Clifford, A. W. Orr, J. H. Carr, F.R.C.V.S.; R. Norman Potterton, R. Duncan, D. T. Hussey, Alan H. Coall, J. R. Campbell, Arthur T. Ellis, James T. Ellis, W. Ellis, Wm. Burby, Professor J. F. Craig, and Professor J. J. O'Connor, representing the Veterinary Medical Association of Ireland; John Kelly, I.S.O.; W. H. B. Fitzgerald, R. L. Armer, Lieutenant-Colonel J. Moore, A.V.C.; J. B. Stephens, F. Thompson, L. E. Steele, C. W. Steele, E. L. Porter, John J. Alcorn, Christopher Cooney, F. C. Mallet, G. B. Moore, H. W. Hovenden, A. R. Mallet, E. Wilson, Sir Robert Matheson, R. Ganley, — Carpmills, J. Burrell, P. O'Connor, ex-Sergeant Joseph Dunne, D.M.P.; Charles O'Neill, ex-Sergeant

THE ADVANCE TO KAAPSCHE-HOOP.

SEPTEMBER, 1900.

On 8th September Hutton was at Machadodorp with 1600 mounted men. The work before him was to gain a foothold south of the railway line on the Kaapsche-Hoop plateau, which forms the key of the railway running east to Koomati Poort and commands the country leading to Barberton. In this position he protected the left flank of General French, on his way to Barberton, and opened the railway to the advance of Pole-Carew; the latter could make no headway at Waterval Onder owing to snipers on the heights above the line, until a force had been sent to get behind them. The country through which Hutton was operating consisted of a series of mountain ranges, steep defiles, and deep valleys. He had to fight for his road, and finally when close to Kaapsche-Hoop (30 miles from Machadodorp as the crow flies) it was found that the precipitous Godwaan Valley separated him from the plateau. It was impossible to take waggons down the sides of the valley, so these were sent back, and with double teams to his two guns and pom-pom he plunged into the depths below, and after a night march seized Kaapsche-Hoop on 13th September. His loss in animals from hard work must have been considerable, but of it there is no record.

THE ADVANCE TO KOOMATI POORT.

SEPTEMBER, 1900.

The mounted troops accompanying this force consisted of Artillery and Henry's Mounted Infantry. It left Waterval Onder on 12th September, and keeping to the line of rail as far as Godwaan, left this place on the 14th and marched to Kaapsche-Hoop. From the railway the road ascends 2400 feet, a heavy day for the transport animals. There was no water or grazing on the road, and this continued for two days. The track then descends to Avoca in the Barberton Valley; in places it disappeared, and on one occasion it took five hours to cut a five mile path in the bush. On 20th September Kaapmuiden was reached, the junction of the Barberton and Delagoa line, where a considerable haul of railway stock was made. Great heat was here experienced in the Koomati Valley. There was no forage for the animals, but some flour was commandeered, and 8lb. for horses and 5lb. for mules were issued mixed with water. Koomati Poort was reached on 24th under great privations, there having been only one small feed of oats on the 22nd. There was no forage in Koomati Poort on arrival, in fact none was obtained for these animals until the 28th, and this was sent up from Lorenzo Marques. By this time many of the horses and mules were too far gone to be able to eat, and the losses from pure starvation were accordingly very heavy.

At Koomati Poort the enemy besides destroying the stores, ammunition and guns, set fire to all food and forage. A day's march behind Pole-Carew was I. Hamilton; his mounted troops also fared badly, and those last marches of the central forces to the eastern limit of the Transvaal were the most severe, so far as animals were concerned, which had been experienced since the Kimberley-Paardeberg operations. The forces of Pole-Carew and Hamilton, after the capture of Koomati Poort, returned west.

The veterinary officers with Gen. Pole-Carew were Lieut. Todd and C.V.S. Fisher. It is not known who accompanied Gen. I. Hamilton. Lieut. Sawyer was with the Headquarter Staff.

THE ADVANCE TO BARBERTON.

SEPTEMBER, 1900.

On August 31 French concentrated his forces at Machadodorp, whither he had returned from Waterval Onder on the arrival of the prisoners of war (p. 99). As the result of the operations around Belfast he despatched 148 sick horses to be sent west by rail, among these were 48 sore backs, 62 exhaustion and 34 lame; prior to this 31 had been destroyed, mainly for debility, though 2 were for glanders.

The operations now to be recorded constitute one of the achievements of cavalry. Barberton lies in the extremity of the Eastern Transvaal and is connected by a branch line with Koomati Poort. It had become a vast railway and commissariat centre for the enemy, for its position rendered it practically inaccessible to a hostile force. It lies in a huge bowl 5000 feet below the high veldt and between it and the sea. The bowl is 30 miles broad by 50 miles long. In order to reach the edge of the bowl from the table-land above, a mountain range had to be traversed—a practically unknown, roughly mapped region which might well from its forbidding appearance have been regarded as inaccessible for cavalry. Its actual difficulties exceeded any which had been imagined. In order to reduce the opposition in an area where a handful of men could delay an army, French deliberately misled the enemy by marching away from his objective, going due south to Carolina, and from there suddenly darting east and descending on Barberton out of the clouds. The distance from Carolina to Barberton as the crow flies is 70 miles. The scheme succeeded admirably, and we have now to study its veterinary aspect.

On September 4 French left Machadodorp with the 4th Cavalry Brigade, the 2nd Brigade having preceded him on September 2. He reached Carolina on the 6th. The road thither was bad; on the first day he lost several animals, but on the fifth the severe pull up from the Koomati River to the heights above Bonnefoi, a distance of five miles, was a trying experience for his transport. During this short distance 63 oxen fell dead, though double spans were used in the waggons. His transport generally was in a bad way (p. 98), the mules were in very low condition and going from bad to worse,

and the oxen were not only poor, but pleuro-pneumonia was rife among them. Several of the 63 which fell on the Bonnefoi road were examined post-mortem and were found to be affected with this disease. In the work ahead everything depended upon the transport: from the moment Machadodorp was left all in the shape of supplies had to be carried, nothing could possibly be obtained on the road. Sufficient for nine days was taken, which allowed the horses 10lb corn and 2lb bran daily.

At Carolina a rest was given in order to allow the transport to graze as the grass was good and abundant, but the place is notorious for the prevalence of "tulip," and several animals were lost from poisoning during the two days the force halted. Here also Mahon's column joined that of General French. On September 9 the force started east for Barberton, the following being its strength.

1st Cavalry Brigade	1153 horses
2nd "	876 "
Mahon's Column	1415 "

With the Force were the following veterinary officers: Captain Blenkinsop, D.S.O., S.V.O., Captain Richardson, Lieuts. Griffiths, Melhuish, C.V. Surgeons Head, Brownless, Masheter and Bowhill.

For the first 10 miles out of Carolina the road was good, over rolling veldt; this was succeeded by a stiff climb up the Roodehoogte Ridge, where opposition was experienced, and the pass of that name had to be forced. The road then fell to the Buffelspruit drift, which was crossed on September 10, the 13 miles of waggons taking 5½ hours to get over. On the previous day it had been found necessary to reduce the horses rations to 7lb corn and 1lb bran, the mules receiving only 3lb corn and 1lb bran. On the 11th the severe work of scaling the De Kaap mountains began. The road for the transport lay through a pass known as the Nelshoogte, both ends of which were held by the enemy. The pass is two miles long, the summit being 5500 feet above the sea. In the last 800 yards the road rises 500 feet and has a gradient of 35°, or 10° less than the slope of the wall of the horse's foot at the toe. The horses were led over the mountains by hand, for the enemy had to be dislodged before the pass was available. Mahon's force in these operations lost 161 horses from exhaustion. From the top of the pass a magnificent view of the surrounding country was obtained, and lying in the bowl at the observer's feet, some thousands of feet below, was Barberton.

It took three days and nights of incessant work to get the transport through the pass. Three teams were placed in every waggon. Many animals died, especially among the oxen, the majority of which were actually asphyxiated through defective lung ventilation, owing to pleuro-pneumonia. The descent into Barberton, 5000 feet below, was by a road 30 miles long which wound down the sheer precipitous face of the mountains. There were four miles of sharp gradients and curves over loose stones and boulders. At one point, known as the

"Chute" the road was so steep that the fore and hind wheels of the waggons had to be lashed together. The road down was almost as difficult as the pull up, and many accidents occurred.

On reaching the summit of the pass Gen. French determined to descend at once on Barberton, so leaving the bulk of his troops and the whole of the guns and waggons to descend by the road above described, he decided to take the 1st Cavalry Brigade down a goat track which reduced the distance to Barberton to 15 miles. Speed was everything if his raid was to be productive of useful results, for the prize in Barberton was worth a struggle. Accordingly the men dismounted, and travelling in single file passed down the steep side of the mountains, in the first seven miles of which there was a fall of 1000 feet into the De Kaap Valley below.

A living string of men and horses, four miles in length, crawled down a winding slope like the roof of a house, and many injuries resulted to horses from rocks and stones. The descent occupied four hours, and once the bottom was reached Barberton was but 12 miles away. The men were now mounted and pushed on at as fast a pace as was possible. The damp, stifling heat of this feverish valley formed a great contrast to the dry, invigorating air the troops had just left.

The audacity of the movement took the enemy entirely by surprise; they calculated on the road being followed, which would have delayed the force for at least a day. As a consequence they had only time to ride out at one end of Barberton as French entered at the other. There was a race to cut the line and prevent the priceless railway stock being carried away or destroyed. The weakness of the force was concealed by audacity. The officials were captured, and it was a Farrier-Corporal of the 1st Life Guards who succeeded with a pickaxe in disabling the railway. It was a fine operation, worth all the sacrifices and hard work entailed, for it resulted in the capture of 44 locomotives, two complete trains, large food supplies, arms, ammunition, prisoners and £10,000 in cash.

On the following day, the 14th, the transport began to arrive, but it was not until the 18th that the last of it had negotiated the 30 miles of road down the mountains.

Barberton was well known to be a hot-bed of "horse-sickness," and at once preventive measures were suggested by the S.V.O. Cavalry Divisions in the event of any long occupation being made.

On the 19th a temporary veterinary hospital was opened on a neighbouring farm, and placed under a Civil Veterinary Surgeon. The usual methods of formation had to be adopted; rope purchased locally, medicines collected from various units, supplemented by purchase, though there was little available for sale. The N.C.O.'s and men were taken from the Cavalry Brigade.

The amount of wear and tear in the transport may be gathered from the fact that 560 oxen and 300 mules had been expended. The few ponies and mules in the town had all been collected and branded,

but they were generally in poor condition, and the mules only furnished 70 for transport purposes.

The shoeing of the cavalry horses was an important matter; after the severe time they had had many were in a shoeless condition, the result of descending the mountain side. Two forges were commandeered. There was a quantity of shoes in the place and plenty of iron and coal, also sufficient nails to enable a good deal of work to be done before the retirement.

The grain ration allowed at Barberton was 7 lb. mealies daily until September 27, when a ration consisting of oats 8 lb, compressed forage 3 lb, mealies 1 lb, bran  $\frac{1}{4}$  lb. was issued. There was nothing but grazing for the mules from September 17 to 24, for the amount of forage in Barberton was very small. On the 24th a grain ration was again issued them. Though the mules got some rest at Barberton the oxen obtained none, having at once to proceed to the line for supplies.

Between September 20 and October 1 the total number of animals admitted to the Field Veterinary Hospital was 360 horses and 14 mules, of which 110 horses and 3 mules were destroyed, and 13 horses and 5 mules died.

The 360 admissions were as follows:

Sore backs	153	Exhaustion	132
Lameness	65	Various	10

The largest number of sore backs (40) was furnished by the Imperial Light Horse, the next largest (29) by the 6th Dragoon Guards.

On September 25 a case of horse-sickness died in the veterinary hospital, and before the troops evacuated the town on October 3, eight fatal cases had occurred.

On October 3 the cavalry force left Barberton for Machadodorp, near Belfast, *via* Kaapsche Hoop, the plateau in the De Kaap Mountains above Barberton, already occupied by Hutton's Force. The day was wet and the roads heavy. The mules in the transport had a severe time, for oxen were of very little use owing to the slippery state of the road. There was a terrific thunderstorm, such as South Africa, but especially the Barberton district, is noted for; two men, two horses and four mules were killed by one stroke of lightning. The march this day was 18 miles, and left the animals greatly exhausted. On the 4th a 12 mile pull up a steep hill had to be dealt with. The roads after the rain were very heavy, and during the last 6 miles triple teams had to be employed. Twenty-five mules died or were destroyed on the march for exhaustion. The oxen were again unable to work effectively owing to the slippery state of the roads. On the 5th a halt was made to enable the transport to get up the hill. To accomplish this it worked day and night.\*

\* This march, terrible for animals, has been described by Captain A. S. Head, late A.V.S., who at the time was serving as a C.V. Surgeon with the Cavalry Brigade.

"The first day we camped at the Devil's Kantoor at the foot of the mountains surrounding the valley in which Barberton is situated. After a very cold night, we started next morning to get the transport up the mountain road, which

A veterinary officer was sent to the bottom of the hill to collect all stray mules, the worthless to be destroyed and the others to be driven up quietly: 35 animals were thus saved. On the 8th Machadodorp was reached. The casualties for the march of 100 miles from Barberton to Machadodorp for the two Cavalry Brigades was as follows:

Abandoned	36 horses 6 mules
Died ...	23 " 12 "
Destroyed ...	11 " 3 "
Missing ...	3 "
Sent to Hospital	16 "
Unfit at end of march	44 "
	<hr/>
	131 21

What the casualties were for the transport we have no record.

The Veterinary Hospital raised at Barberton accompanied the main column, under C.V.S. Brownless, with 196 sick horses and 3 mules. It arrived at Machadodorp with 164 horses and 1 mule, which it handed over to the hospital there. 32 horses and 2 mules had died, been destroyed or lost on the road.

During the above march from October 3rd to 8th, the horses had received from 5 lb to 12 lb of oats daily, 1 lb bran and 5 lb hay. The mules received 4 lb. to 6 lb mealies and no hay.

At the time we are speaking of Machadodorp was the centre for all the forces operating east of Belfast. Colonial troops, time expired, were being disbanded, and their horses were left here, together with those of General Buller's late force such as were no longer required. The Cavalry Brigades consequently came to Machadodorp for re-fitting, prior to undertaking the last eventful march of the Cavalry Division in South Africa, before its dissolution under the disintegrating influence of guerilla war. The only part of General French's refitting at Machadodorp which concerns us is that of the horse supply, and for this purpose we must study the conditions of the Remount Depot.

#### REMOUNT DEPOT AT MACHADODORP.

OCTOBER, 1900.

From what has just been said, Machadodorp was converted into a dumping ground for all sick and lame horses and the animals from all disbanded

was axle deep in mud . . . For two days and nights the work continued; every waggon had double or triple spans of oxen or mules, and even with these they could only get a few hundred yards at a time. The road instead of improving got worse and worse (it rained in torrents), waggons sunk up to the hub of the wheels and had to be dug out. The patient oxen strained under the terrible punishment the drivers are capable of inflicting with a whip which goes off like the report of a rifle. . . . The pouring rain, the howling and screaming of the drivers encouraging their teams made the scene a veritable pandemonium. When at last all the waggons were on top of the mountains, what with wet, cold and hard work, it would have been difficult to find a more sorry-looking or exhausted lot of animals in South Africa." "The Wear and Tear of Horses in the South African War," *Journal of Comparative Pathology*, 1903.



Colonial regiments. For the purpose of their reception the Remount Department opened a Depot, and on the date we are now speaking of, October 10, this contained 2000 animals, the veterinary staff being one officer of Yeomanry\* and a Civil Veterinary Surgeon. In one enclosure there were 700 sick animals, and the only subordinate to assist the veterinary officer was one Farrier-Sergt. The above does not represent all the sick: many had already been entrained and sent west. Nevertheless such a charge as that above mentioned would tax the organizing powers of a veterinary officer of many years military service, with a staff of at least five officers to overhaul and classify the cases. The catching up of 700 loose horses requires a liberal supply of labour, and until they are caught up and examined it is impossible to know what is wrong. This fact, sometimes lost sight of, is frequently unknown to staff officers, who do not realize that, unlike the medical officer, the veterinary officer has to find out everything for himself, and that he cannot work or attempt to sort his cases without a staff. He has first to catch his hare before he can cook it. Major Bostock, S.V.O., of Eastern Transvaal, now appeared on the scene from Lydenburg, and set to work to endeavour to evolve some form of order out of the chaotic mass. As a matter of fact the whole of the 2000 animals, horses and mules, in the depot were more fit for the sick list than for duty. On inspection 110 cases of mange were discovered, and 149 animals were so far advanced in debility that they were destroyed. The remaining 440 cases were debility and surgical, mainly sore backs. This remount depot was merely a collection of sick animals in charge of a remount officer who had no notion what to do with them. His solution of the problem was to pass them on to someone else by filling up every empty supply train on its way back to some large centre. In this way glanders, mange and, later on, ulcerative lymphangitis, were mixed up with debility and war-worn horses, for these stood side by side in trucks, often for days, until their destination was reached. Long before that period had arrived their identity was entirely lost; no one knew where they were from, or to whom they belonged. The survivors were drafted into another depot for sorting, and the dead were pulled out of the truck.

Nothing can exceed the misery of these wretched animals, starved and ridden to a standstill in the field, crowded into a receiving depot on the line of communication, where they had been handed in as useless, and with no proper watering and feeding arrangements existing in these depots for dealing with masses of horses. Finally they were bundled into an empty supply train, with no arrangements for food or water until the destination was reached. The time on the journey might occupy anything from one to seven days, depending upon the traffic

and the destruction of the line by the enemy. Those who collapsed in the truck from jolting, sharp curves, shunting, and such like, fell and rose no more, the remaining spark of life was soon trampled out of them. War cannot be carried on by sentiment, but the sufferings in the above described cases, typical of many thousands, was the result of ignorance of the requirements, care and management of animals, and the entire absence of any system of organization thought out in peace for dealing with the wreckage of war.

Before leaving this so-called remount dépôt at Machadodorp, in order to continue our account of General French's operations, we may note that on October 25 the number stood as follows:

Before leaving this so-called remount dépôt at Machadodorp in order to continue our account of General French's operations, we may note that on the 25th October the number stood as follows:

Received into the depot since its formation	2594
Died and destroyed	644
Transferred to other depots	781
Remaining (Horses 638, Mules 531)	1169

Among the 638 horses were—sore backs and debility 230  
mange 40  
requiring rest and food 360

Among the 531 mules were—mange 130  
requiring rest and food 400

### GENERAL FRENCH'S MARCH.

#### MACHADODORP TO HEIDELBERG.

OCTOBER-NOVEMBER, 1900.

The dispersal of the Republican Forces after the operations terminating at Koomati Poort and Barberton, did not bring the war to a close, as had been hoped. The campaign imperceptibly entered upon a fresh stage, that of a guerilla war, the most trying to which disciplined troops can be submitted. Henceforth it was to be a war carried on by columns, and among the earliest of these was a column composed of the Cavalry Division now at Machadodorp, which it was intended should march through the S.E. Transvaal and clear the country between Standerton and Heidelberg. To reach the vicinity of Standerton it had to march south *via* Carolina, and then west by Ermelo. From Machadodorp to Heidelberg is 220 miles.

We have seen that the mounted force from Barberton arrived at Machadodorp on 8th October. It was here ordered to refit from among the number of animals now set free by the disbanding of certain colonial troops. The chaos existing at the remount dépôt at Machadodorp has been alluded to; it is easy to understand the difficulty experienced in selecting fit animals from the mass there assembled.

Machadodorp dépôt yielded 791 horses for the cavalry, but all of them required rest and food. Large numbers of mules were also exchanged, as the majority with the force were unable to go any

\* The late Lieut. Barningham, who did his utmost to afford assistance, a purely voluntary act (p. 54).



further owing to starvation. Oxen were also needed for the supply pack, but those obtained at Machadodorp were very poor and quite unfit to march, and moreover had practically had no grazing for some days when the column started. These animals had to pull 14 days' supplies for the force, for nothing could be obtained from the moment it left the line of rail and entered the interior. The supplies were carried in 150 waggons.

The refitting and resting of the Cavalry Division occupied from 8th to 12th October. The force was now organised into three brigades, and the total number of animals with it was as follows :—

Horses 2665. Mules 2671. Oxen 2496.

The following veterinary officers accompanied it. Captain Blenkinsop, S.V.O., Captain Richardson, Lieuts. Griffiths and Melhuish, C. V. Surgeons Head, Masheter and Bowhill.

The 3rd Brigade marched out on 12th for Geluk, the 1st and 2nd Brigades on the 13th, all to unite at Carolina. The 3rd Brigade had not gone far when it was attacked on three sides, and lost 9 horses killed and 23 wounded. On the 13th the two other Brigades moved off together with the ox convoy. Owing to the disturbed condition of affairs grazing was difficult, and on the 14th the activity of snipers prevented any attempt being made. The troops arrived at Carolina on 14th, the ox convoy getting in at 6 p.m., and in these two marches no less than 387 oxen had fallen out from exhaustion. Carolina is 40 miles from Machadodorp, and we have already seen, p. 101, the severity of a part of the road over the Koomati River.

This was a very bad start; every ox that dropped out threw its work on the survivors, and the loss of 387 meant the loss of 24 waggons, the contents of which had to be piled on the waggons already full. On 15th a rest was given the convoy for the purpose of grazing. On the 16th the columns moved over a front of 15 miles. The 1st Brigade suddenly came in contact with the enemy, and 6 horses were killed and 16 missing. The oxen, however, had a better day, for good water and grazing were available; nevertheless, 30 fell out on the road. On 17th the enemy made another attack. There was fair grazing for the oxen, but 69 fell from exhaustion. It must not be assumed that no horses fell out other than those killed in action, the horse losses will be tabulated later; the point of importance in this narrative is the extraordinary losses among the oxen. Even had they been fit, it is impossible to expect the slow moving ox to keep up with cavalry, and in their starved condition it was hopeless. On 18th Ermelo was reached, and fair grazing obtained for the oxen, but 78 were abandoned during the 17 mile march. On the 19th the column headed for Bethel, there was fair grazing and the oxen marched 19 miles. The enemy here crept up between the grazing cattle and inflicted some loss on the men. In the afternoon there was a heavy thunderstorm, and 48 oxen were abandoned. The 20th was a bad day, a

20-mile march over burned veldt, so that there was no grazing. The loss of oxen this day was 220. The force halted at Bethel on 21st, with snipers all round and heavy rain during the day. On 22nd the force left Bethel for Heidelberg; after going 17 miles it was stopped by a severe thunderstorm in which 5 kaffirs and 2 ponies were killed by lightning. There was no grazing for the cattle, but a little kaffir corn was obtained for them. Twenty-two oxen were abandoned this day. From this date onwards there was constant rain and thunderstorms.

There is no language which adequately describes the torrential outburst of a South African storm, backed up by a wind which gives the rain the penetrating power of a hose pipe. The electrical discharges appear to come from every point of the heavens at the same second of time, and produce a violet illumination followed by thunder of extraordinary crashing intensity and ear-splitting vibration. On 23rd there was an 18-mile march in rain over a veldt now a morass. The wretched oxen staggered along; the wet weather was now rendering them foot sore, and for the same reason the pole galled the neck; on this march 105 animals fell out. On 24th the rain and sniping continued; there was a thunderstorm in the afternoon, but fair grazing was obtainable for the cattle, though 61 fell out. It rained all that night and all the morning of 25th. A 20-mile march caused 57 oxen to be abandoned. It rained all the 26th October, on which date Heidelberg was reached, after 128 oxen had fallen out as the result of the day's march.

In the whole history of the war it would be difficult to find a parallel to this march of misery; night after night, in pitiless weather, men and horses were exposed to the blast without a shadow of shelter. Practically the whole fighting force was on outpost duty, and the horses under saddle day and night. The enemy very rightly gave the column no rest, the country was bare and stripped of supplies, the transport melted away. During the entire march the enemy hung on the flanks and rear, constantly sniping or making rushes. As the force traversed each district it was the duty of the local commando to take up the running, and harass the column while passing through its country. No sooner had the rear guard left the sky line than it was occupied by the enemy, and this continued up to Heidelberg.

The enormous mortality among the oxen was believed by some to be due to pleuro-pneumonia, but Captain Blenkinsop examined many of the animals post-mortem and found no indications of the disease. He invariably found but little food in the rumen, and the other stomachs greatly contracted, there was no fat throughout the body, and the tissues were very anæmic. How these poor creatures were able to pull an ounce, even under the terrifying influence of the long whip which is wielded with such skill, is remarkable.

The following gives the losses from Machadodorp to Heidelberg.

HORSES.	Strength marching out	2665
	Died	35
	Destroyed	68
	Abandoned	102
	Killed in action	46
	Missing	68—320
	Strength marching in	2345
	of which 270 were unfit for further work.	
MULES.	Strength marching out	2671
	Died	26
	Destroyed	13
	Abandoned	67
	Missing	22—128
	Strength marching in	2572
	of which 16 were unfit for further work.	
OXEN.	Strength marching out	2496
	Died, destroyed and abandoned	1230
	Captured by enemy	96—1326
	Strength on marching in	1170
	all of which were unfit for further work.	

The loss of these oxen necessitated 55 waggons being burned on the march.

The feeding of the horses and mules during this march was better than had previously been the case, owing to the issue of a forage cake consisting of compressed oat hay; chaff had also been issued, which enabled the grain to be of more value. On arrival at Heidelberg both horses and mules were in fair condition.

The destination of this force was Pretoria, so after handing in the ox transport and receiving mules in their place, the column on the 30th October headed for Pretoria, *via* Springs, where it was inspected by the Commander-in-Chief on 31st October.

The 60 miles march from Springs to Pretoria would not be referred to but for its remarkable veterinary interest in illustrating the effect of wet weather on animals under active service conditions. The distance was covered in three marches, it rained the whole way, day and night, the roads were deep in mud and rapidly exhausted the mules. These were now being fed with unparalleled liberality, their daily ration consisted of 6lb. mealies and 8lb. compressed forage, augmented by commandeered oat-hay, but their systems were worn out, and under the influence of mud, rain, and cold they died in a remarkable manner. During these three marches 36 horses and 248 mules died from exhaustion. The force arrived at Pretoria on 3rd November and the Cavalry Division was broken up.

The "Official History," in commenting on this march, admits that in some respects it was the most expensive operation in the campaign. The sweeping up of the Eastern Transvaal was considered a simple matter after the collapse of Koomati Poort, but although we had now been at war with the Republics for a year we knew nothing of their national character. French's force was pelted—if the expression may be employed—almost every yard of the road from Belfast to Heidelberg; instead of sweeping up this part of the Transvaal the force itself was driven along and it left the traversed area stronger than it found it. The "Official History" summarises the result as follows:

"Nor did the moral effect of the operations add to the credit side of the British account. The results achieved fell far short of the wastage incurred. The enemy encountered on the road saw the force disappear into Heidelberg with feelings rather of exultation than of relief, for the veldt behind it was strewn with its *débris*, and they plumed themselves that they had driven a whole division of cavalry to seek shelter under the guns of the railway guards."

### THE RHODESIAN FIELD FORCE.

MARCH-SEPTEMBER, 1900.

It was during the dark days of December, 1899, that the Chartered Company of Rhodesia got anxious about the safety of their Territory, and asked that a force should be raised for its protection. After first being opposed by the War Office, the principle, three weeks later, was agreed to, and a force of 5000 men and 7000 animals was approved, the whole to be raised in Australia and New Zealand, with the addition of regiments of Yeomanry from home.

The difficulty, however, was to reach Rhodesia, which lies in the core of a continent, and at that time could only be entered by passing through the territory of a foreign power, as the Transvaal and Cape Colony routes were absolutely closed by the enemy. The route lay through Portuguese territory. It would seem that no doubt existed in the minds of the authorities of the treaty rights that existed with Portugal on the matter of passing troops through 200 miles of her territory; but Portugal, anxious to run with the hare and hunt with the hounds, took a somewhat different view of the matter, and by a process of delay, which would have reflected credit on Turkish diplomacy, it was not until 22nd March that the Portuguese Government agreed to recognise her own treaty obligations, at a time when Paardeberg and the occupation of Bloemfontein had enabled her to see more clearly into the future. After the inception of the force had been agreed to, Rhodesia was empowered to make all arrangements for the purchase of stores and equipment, the Imperial Government paying the bill, and so expeditiously had this been accomplished that, by the first week in February, not only had the equipment been purchased, but part of it shipped and on the sea before authority to land it had been obtained.

The force consisted of

17th and 18th Battalions Imperial Yeomanry.  
2500 Australian, Tasmanian, and New Zealand Bushmen.  
1850 Imperial Bushmen.  
And some Artillery, at present untrained.

The port in Portuguese territory, Beira, was situated on the ill-smelling Pungwe River. The surrounding country for many miles inland is flat, and contains the decaying vegetation of centuries. The soil is black and fetid, and has been well described

\* "Official History," p. 435, vol. iii.

as resembling a disused sewage farm.\* Beira is connected with Rhodesia by rail, the Pungwe being only navigable for a few miles inland. The existence of the railway is due to the "fly belt" lying between Beira and Rhodesia, which rendered animal transport impossible for a distance of many miles from the coast. To overcome this a two-foot railway was laid and connected with the frontier of Rhodesia at Umtali, 200 miles from Beira. From the Umtali end the gauge had gradually been increased to the South African standard, but at the time the war broke out there still remained 60 miles of two-foot gauge. It existed between Beira and Bamboo Creek, the latter being beyond the navigable end of the Pungwe River. Those sixty miles of narrow gauge wasted some millions of money and wrecked the Rhodesian Field Force. When it is stated that, subsequent to the destruction of the expedition, the whole sixty miles were converted from narrow to broad gauge in three days, it would certainly appear that some malign influence awaits all our military operations in South Africa.

The line, of course, belongs to Portugal, and was miserably run; the rolling stock and permanent way were bad, trains left the metals, others stopped for want of fuel or water, or because the driver was too drunk to proceed. Railway officials were hopelessly indifferent, and saturated with procrastination. In consequence, the men, horses, and stores which arrived at Beira could not be got out of it, or not further forward than the end of the narrow gauge line, at the place bearing the ill-favoured name of Bamboo Creek. As a matter of fact this spot did not belie its name, it was a pestiferous swamp, and both here and at Beira the troops lay rotting from dysentery and fever, while 150 miles further west were the healthy highlands of Rhodesia. Gradually, very gradually, troops and horses were transported thither, but too late to be of any use in the phase of the campaign for which they were intended, and too late to save the lives of numbers of the men, or prevent the hospitals being filled to overflowing.

The whole question is dealt with by the "Times History," in which specific instances of the period occupied in getting up country are quoted. It took a company of Yeomen 42 days to be carried 200 miles by rail. The Queenslanders were 40 days getting from Beira to Marandellas, a distance of 300 miles. It is no wonder that in June regiments which had never fired a shot had a sick rate of 50 per cent!

The Beira line terminated on the frontier of Rhodesia at Umtali; a camp was formed here mainly for the accommodation of the sick. One hundred miles further north-west lay Marandellas, where the actual base of the Rhodesian Field Force existed. Marandellas was in railway communication with Umtali, but at the time we are speaking of the railway did not go beyond Salisbury, and Bulawayo was not connected with it. After being equipped at Marandellas the troops had to march

280 miles to Bulawayo, and the available transport was so limited that it took a month to move 200 men. It was the 12th June before the first Brigade was formed at Bulawayo, and it was September before the second Brigade reached that place. Even from Bulawayo the force had to be transported miles by rail before reaching the nearest point of hostilities in the vicinity of Mafeking.

The horses of the force were all landed at Beira, where they were huddled in paddocks erected for their reception. Here, batches of 1500 were crowded together, and for these one water trough existed! There were also paddocks at Bamboo Creek of the same type, and at Marandellas a large Remount Depot. The horses in many cases were kept for weeks in the marshy mud flats of Beira and Bamboo Creek, and here cases of "horse sickness" occurred. Glanders was also found to exist at Beira, and later in consequence of this, and the representations of the Chartered Company, the whole of the 7000 animals, or rather as many of them as mallein could be obtained for, were tested for the disease.

The action of Rhodesia in the matter of glanders cannot excite surprise. Before the war she had been the first of the South African Colonies to insist upon testing all imported horses for glanders; whether it would have been practicable to have carried this out in war, had it not been for the Beira delay, is doubtful. The total number of animals tested was 6000, and the number of reactions was 158, of which several were clinically affected.

The animals came from Australia, New Zealand, Texas, and Hungary. There were 3500 Hungarians at Marandellas on 7th June, but which of the various countries sent glanders to South Africa we do not know, probably all with the exception of Australia, where no glanders exists.

The Rhodesian Field Force at its inception was intended to invade the Transvaal from the north and occupy Pietersburg. Many miles of waterless, feverish country lay between the Limpopo and Pietersburg. The two Yeomanry Battalions were sent to Tuli, and also across the river into Transvaal territory and there experienced for some weeks what it was to live in a salt feverish desert, little healthier than Beira and Bamboo Creek. But the force as a whole was too late in appearing to be of any use for this purpose. Delays and disappointments were its lot, due to bad management and incapacity. The men were alright. The colonies sent their best; some of them we have already seen at Elands River (p. 94). The Yeomanry showed what exertions they were capable of in the subsequent campaign in Cape Colony, but the Rhodesian Field Force *per se* was a disgraceful fiasco. It was broken up in September, 1900, and its fighting units scattered to opposite points of the compass where the urgency for reinforcements was greatest.

The Veterinary Service was under Major Mann, A.V.D., who was created Principal Veterinary Officer. With him were the following Civil Veterinary Surgeons for whom he secured the rank of

\* "Rhodesia and After," S. H. Gilbert.

Lieutenant during the existence of the Force:—Messrs. Barnard, Kellett, Lund, Montgomery, Norgate, Peddie, Pinkett, Stockman. The Veterinary Officer with the 18th Battalion of I.Y. was Lieut. F. Gregory; the 17th Battalion appears not to have had a veterinary officer. So far as veterinary stores were concerned the force was well supplied, and their surplus equipment was subsequently found very useful.

#### ORANGE FREE STATE.

BOTHAVILLE, DEWETSDORP. SECOND CHASE  
AFTER DE WET.

OPERATIONS, AUGUST—DECEMBER, 1900.

Our last consideration of events in the Orange Free State was Prinsloo's surrender at the end of July, and the chasing of De Wet across the Vaal (see p. 90). Though the surrender at Wittebergen involved a heavy loss of men and material, the Free State was by no means on its knees; there were still large forces available, among others one with Olivier, who was immediately outside the Brandwater basin at the time of Prinsloo's surrender, and refused to recognise his authority. Olivier went north, and as soon as possible was followed by Hunter, whose force, now re-organised, marched from Bethlehem to Heilbron in order to head him north from Vrede; Rundle, who took Hunter's place at Bethlehem, also sent two columns in the direction of Vrede, which reached that place on Aug. 15 but found Olivier was not there. As a fact he was just south of Heilbron on that day, and Hunter was engaging him, though without success so far as his capture was concerned. The two Vrede columns began clearing operations, one to the north the other to the south of the town, resulting in many horses and thousands of oxen and sheep being captured, and supplies and forage either destroyed or annexed. Meanwhile Olivier, after being engaged by Hunter, had gone south of Kroonstad, and on August 27 attacked Winburg, where he was finally ambuscaded and captured by the Queenstown Volunteers.\*

It is possible the cause of the Free State might have languished in spite of the personality of the leaders of its commandos, had not De Wet returned from the Transvaal (p. 92), and recrossing the Vaal on August 23 began to put fresh life into the movement of resistance, which in future was to be purely guerilla. Commandos were to collect, do all the damage they could, and disperse if pressed. Isolated posts were to be snapped up, and the scheme involved not only these but the recapture of Bloemfontein. The mobility of the Burgher Forces was to be increased by the abolition of waggons, hitherto the home of the burgher when on the veldt, and the commandos were to be purely horse. Ammunition was buried at convenient centres, supplies were

available in the farms of friends, and under great pressure, or general retirement, the inaccessible mountainous region in the Eastern Free State, known as the Doornberg—a few miles west of Senekal—was to be the rendezvous. Such was the general scheme for the plan of campaign in the Free State at the end of August, 1900; later it extended to the Transvaal, but at the period under consideration the Republican Force in the Transvaal had not disintegrated.

At the time of the introduction of the guerilla war into the Orange Free State the total number of columns in existence was eight, each with a strength in mounted troops varying from 100 to 500 in number. These consisted mainly of mounted infantry and Yeomanry; in fact the total mounted forces in the Free State at this time did not amount to one third of that of the enemy, in spite of their recent losses.

It was under these conditions that anxiety again developed on hearing that De Wet had re-crossed the Vaal and returned to his own country, where he took the field on September 27; it was nearly a month later before he was heard of, during which time he was re-organizing his forces on the lines mentioned. The events occurring from the capture of Olivier on August 27 to the recrudescence of De Wet on October 20 must now be indicated.

In order to check the evidence of fresh disturbance in the Free State, B. Hamilton, commanding one of Hunter's columns, together with Le Gallais' 900 mounted troops, moved to Bloemfontein. Rundle was still busy with his two columns in the north-west. A small column of 300 Imperial Yeomanry and 60 Mounted Infantry were under White at Ventersburg, south of Kroonstad, and C. Knox looked after the railway from Kroonstad to the Vaal, but the number of troops available was hopelessly inadequate to meet any serious trouble.

On September 1 *Ladybrand* was invested by a large force of the enemy, and White, Le Gallais and B. Hamilton rapidly moved to its relief, which was effected on the 5th. The garrison lost nearly all its horses and transport animals by fire, as it was impossible to afford them cover. The enemy retired north to the haven in the Doornberg, and Hunter determined to follow him; Rundle's columns co-operated. The latter left Bethlehem on September 13 and was soon attacked. Other engagements followed, and Hunter, together with McDonald and C. Knox approached the Doornberg, which it was now determined to lay waste. Laying waste a country is a difficult operation; it may be ravaged in the path of a column, but that path is very narrow. Though six columns were employed from September 18 for the purpose of destroying this place as an asylum, it continued to be used for long afterwards. The enemy fought when it suited them, dispersed when advisable, and collected again when the danger was passed. The columns were very hard upon horses, and the results were small compared with the expenditure occasioned by tramping in a circle around the N.E. of the Free State.

\* This regiment had a severe test a few days before this event. For two days they were surrounded in a cattle enclosure and exposed to shell and rifle fire. Out of 270 horses they lost 102 killed or wounded.

D.M.P. : J. O'Mahoney, W. Dalton, A. Nelson, J. Crowe, Alex. Monro, F.R.C.V.S. : H. Herbert Newton, Herbert Exshaw, J. O'Brien, V.S. : John Reinhardt, Joseph Hatch, J. Marshall Davies, Charles M. Griffin, M.R.C.V.S. ; Ed. Monsell Wilson, G. W. Tyson, M.R.C.V.S. ; William Bewley, William McCormack, Thomas C. Grace, George F. Dunne, F.R.C.V.S. ; J. Clibborn Hill.

A. R. LEWIS, M.R.C.V.S., St. Clears, S. Wales.

Lond : Dec., 1903.

Death took place on Jan. 28th at Llanfihangel, Aber-cowin, from hæmatemesis. Aged 32 years.

## CORRESPONDENCE.

### TREATMENT OF PLEURITIC EFFUSION.

Sir,

The thanks of all practitioners are due to Major E. E. Martin for his kindness in publishing careful and precise records of a series of chest cases at Bulford Camp. It is gratifying to read that "tapping" the chest has been so successful in his clinique.

Experience teaches that the thorax may be punctured with impunity provided surgical cleanliness is practised and a trocar or canula of fine calibre employed. I believe it would be good practice to explore the chest in equine patients whenever we had the slightest suspicion that fluid was forming. Very rarely would it do any harm, and that only of a temporary nature. In many cases fluid would be found, and its withdrawal be followed by much improvement in the patient and a sense of satisfaction to the practitioner. Unfortunately, in private practice clients are sometimes met with who are incapable of appreciating the difficulties of diagnosis, and should our puncture not be followed by a flow, are apt to think our powers of diagnosis at fault. If the patient ultimately dies the belief is treasured that the exploration was unjustified and the end accelerated.

Major Martin is fortunate in this respect and his records the more valuable as they embrace a complete series of chest cases in which paracentesis has been a routine practice.

The advantages of early puncture now demonstrated will, I believe, be confirmed in all clinics where similar methods are adopted. The amount of fluid which may be withdrawn and the animal return to efficiency is extraordinary. I well remember a cart horse yielding a large stable bucketful on three occasions and ultimately resuming his work at coal cartage.

With regard to synovitis, a good deal of this used to be seen in London in the young carriage horse often of Continental origin, but I must admit the cases have not so far struck me as being particularly associated with pleurisy. Major Martin's record of five cases out of nine is however probably more than a coincidence.

GUY SUTTON.

### TUBERCULIN.

Sir,

The use of Tuberculin has been ridiculed by stockowners and when one finds facts as stated by Mr. Pollock we cannot wonder at it. It is a very serious matter for a breeder in America to buy pedigree stock in England, subject to their passing the test here, to find them rejected when landed. I think the profession all ought to be united on this point and then we should not find such great variations. I suggest the following way :

1. Use only Tuberculin supplied by the Royal Veterinary College.
2. Recognise no other make.
3. No stock could then be tested excepting by a M.R.C.V.S.
4. Mark all certificates as having passed the R.V.C. Tuberculin test.

As matters stand now tuberculin can be obtained almost from anyone, and of course that which gives the best result is the most popular with the owner ; there is no uniformity

about it. I have had clients say that they could test their own, but if the profession only recognised one make, the R.V.C. brand, then all the amateur testing would vanish, and very properly too.—Yours truly,

GEO. E. GIBSON, M.R.C.V.S.

Newport Pagnell.

### RECENT VETERINARY PAPERS.

Sir,

I was much interested in reading Mr. G. H. Livesey's paper in your last week's issue. As regards interdigital abscess in the dog, I have had quite reasonable success by opening the swelling, cutting a piece of skin out of them, causticising them well and having them washed twice daily afterwards with hydrogen peroxide solution.

Since using this solution, followed by boracic acid, I have had little difficulty also with ear cases in the dog. I swab them out with the solution, then dust the powder inside the ear. Where there is much pain and irritation Parke, Davis's boro-chloretone powder effects surprising results.

I venture to suggest that the disease in cats described by Mr. Livesey is that recorded by Gaertner in 1909. Mr. Livesey does not say whether he has made any post-mortems, but the thing one finds is a necrotic pneumonia affecting the posterior lobes of the lungs, caused by *B. pneumonise felis*.

What a treat to read Mr. J. J. Edgar's paper in your issue of Jan. 18 after the recent wooden clam controversy.—Yours truly,

G. MAYALL.

(The foregoing were crowded out last week.)

### ADVERTISING.

Sir,

I can go one better than Mr. Wallis Hoare or Mr. Harold Leeney. On Sept. 17th last I wrote to the Registration Committee pointing out an advertisement in *The Record* by a F.R.C.V.S., and enclosing the same. On Oct. 14th I received a letter from the Secretary saying they had instructed him to say that if I could supply the name and address of the person they would take immediate action in the matter. I sent this address on Oct. 26th, and on the 28th had a letter from the Secretary thanking me for the communication and saying it established the identity of the advertiser, and he would let me know the result. Since then I have not heard a word. My experience is that if a man can put F.R.C.V.S. to his name, or is a member of the Council, or even a friend of a member of that honourable body, he can advertise as much as he likes.

I should like to mention that I have always had the greatest courtesy from the Secretary.—Yours, etc.,

JAMES BLAKEWAY.

Malvern Wells, Feb. 3.

### A SURPRISE.

Sir,

On Tuesday last, January 21st, I was called to see a valuable shorthorn cow, calved six days, twins. Her "cleansing" had almost entirely come away, I was informed, but the owner suspected that it had possibly broken off short, and that a little had gone back, so to speak, into the uterus. I examined her carefully, and found the os nearly closed. I could just get the tips of my fingers in, that was all, and there was no sign of any "cleansing" being left. So I washed the uterus with Jeyes' fluid and left her, giving the owner my opinion that she had cleansed all right. He had kept her tied up, and on Thursday evening, two days and a half after my examination and eight and a half days after calving, she parted with another "cleansing" as much as the first lot. That was a surprise packet for me—for I get plenty of practice among cattle. Is this a usual occurrence? A brother V.S. might enlighten me for which I would thank him.—Yours faithfully,

W. F. BLACKWELL.

Towcester.

## VETERINARY INSPECTION—SWINE FEVER ORDER.

Sir,

With reference to Mr. T. J. Simpson's letter on the above subject in your issue of January 18th, I am much surprised that nothing in the way of support has been accorded him. The present seems a favourable opportunity for pressing our claims on the Board of Agriculture. The results, as shewn by the returns of the number of outbreaks during the years in which the Swine Fever Order has been worked under the present regulations have been most discouraging, while much waste of time and money would have been avoided had the Local Authorities carried out the work. I trust that an endeavour will be made to place our views before the proper authority.—Yours truly,

Otley,

ALEX. H. GENTLE.

## MULTIPLICATION OF VETERINARY DIPLOMAS.

Sir,

I agree with Mr. Gray with regard to not allowing numerous men to enter the profession *without a thorough practical knowledge*.

It is a great pity that all our most important business is done for us by outsiders, who probably do not know a horse's head from his tail. What we really want is a British Veterinary Association. The profession has plenty of men who would soon be able to bring this into being. If all the societies were to amalgamate and be known collectively under this title, we should have as efficient a weapon as the sister profession have in the British Medical Association, and be able to make known our demands to the Government, when necessary, without having to rely upon a committee that does not number one V.S. amongst its members.

I do not agree with Mr. Gray with regard to the Fellowship and Public Health Degrees being combined. The subjects alone show that such a thing would be ludicrous. The Veterinary D.P.H. should be as distinct from the F.R.C.V.S. as the D.P.H. is from the F.R.C.S. of the sister profession.

I do not agree with him with regard to his statement "that the F.R.C.V.S. is not much sought after," etc. *This is a fallacy.* The public at large know that the F.R.C.V.S. is a higher degree than the M.R.C.V.S., and if there are say four M.R.C.V.S. and one F.R.C.V.S. in a town you will usually find that they will go to the F.R.C.V.S. The best men in the profession all have this degree, so the value of it is evident.

Furthermore, when the authorities wish extremely "delicate" work to be carried out it is usually the F.R.C.V.S. who is selected to do it; one can usually always rely on a F.R.C.V.S. being a more practical man, more so than the M.R.C.V.S. and his reports are valued more for this reason.

It is time that we acted up to our motto "*Vis Unita Fortior*," and not be always waiting for something to turn up, like Micawber.

"VERITAS VINCIT."

## THE PROSPECTS OF THE PROFESSION.

Sir,

I have read in your issue of the 18th ult. the interview which a representative of *The Morning Post* has had with a leading Veterinary Professor *re* the extent to which the motor car has disadvantageously affected the Veterinary profession, etc. Perhaps you may allow me to state that like many Veterinary practitioners I entirely disagree with this eminent professor with regard to these other compensating advantages (fancied I should say) which he sets forth, and that I consider he would be acting more in the interests of the profession and the public by pointing out the other various inroads which have been made on our domain, and thus help in opening the eyes of Agricultural Societies and others who adopt every means to prevent our obtaining such fair parliamentary protection as might encourage veterinary students to look forward to the probability of being able to obtain even a moderate livelihood, and be the means of averting the loss to the country which a dearth of Veterinary practitioners may entail in the near future.

If—as the British Medical Association has done—this professor could initiate a move by means of which the innumerable

Veterinary quack nostrums might be analysed and published, and by which the Veterinary surgeons who answer correspondents in the Veterinary columns of newspapers could also be dealt with, his action would be more likely to keep the benches of our Veterinary Colleges filled than will the line of calculation which he has adopted in his interview.

If there is really, as he states, a great increase in farming stock of all kinds and in the number of animals used for sporting purposes, so also is there a larger recourse to home treatment, owing to the increased facilities afforded to owners, through (in addition to what I have already mentioned) technical education, itinerant veterinary lectures, and instructions as to the mode of using veterinary instruments given by manufacturers at shows, etc. Consequently I cannot see where our advantage arises here.

About the income derived from an increased number of dog licences I know nothing; the only payments in that line of which I have any knowledge are those paid to petty sessions clerks.

Government departments sign their approval of creolin sheep dips purporting to be manufactured by drug vendors in small towns (where the means of carrying out such work is naturally open to doubt) without taking the trouble of finding out whether such person ever did so, or could manufacture this form of dip. Since we never ambition posing as makers of sheep dip, this particular matter only concerns us in so far that the Government's seal of approval gives the supposed manufacturer such standing as to render him likely to be considered capable of treating diseases in general. This is a case where a representation to the Departments of Agriculture might easily prove effectual.

The inevitable motor car—the disastrous results of which to our profession no one need seek to hide has come to stay. So also has the breeding of sound horses, a system which we very properly encouraged from the start, though we foresaw that doing away with hereditary diseases necessitating firing would create a serious loss to our revenues.

Everything considered, it should be no wonder if veterinary practice should grow beautifully less, consequently it behoves us to try and conserve all the substance we can and not be trying to seek consolation in grasping at shadows.

Assuming that the professor is correct in his statement as to the sons of veterinary surgeons forming 50 per cent. of the students attending the Veterinary Colleges at present that would be no certain guide to go by. Sons frequently wish to follow in their father's footsteps, and it is only natural to think that the latter in declining years would desire to have one to carry on an old-established practice, which might be essential to his support in his old day.

I have, however, heard two respected Fellows of the R.C.V.S. in England say that they would put their sons to almost anything else in preference, and one of them added that it was a decaying profession.

I had been expecting to find in your two subsequent issues criticisms on the professor's views from some able pen, but failing this I am tempted to offer my feeble remarks, in the hope that they may help to draw further attention to points that I consider of some importance. At all events, a little ventilation can do no harm.—Yours truly,

Athy, Feb. 3rd.

JOHN HOLLAND.

P.S.—When attending the funeral of the late lamented Chief Veterinary Inspector of the Department of Agriculture to-day I was reminded of the fact of his not having put his sons to his own profession, and this is only one of several prominent practitioners who have acted likewise to my own knowledge, consequently there must be something seriously amiss, and I cannot be accused of being too much of a pessimist.

Existing practitioners may be able to work out a living but if through apathy on our part what remains of our legitimate field of labour be still further appropriated by those who are not satisfied to stick to their own "lasts." Will students continue to flow to our own veterinary colleges and so supply the country's needs in the coming time, and keep alive a profession the building up of which has cost so much. It is all very well to boast of our advances in scientific knowledge, etc., but that will not keep the pot boiling, so let us set to putting our house in order, and, so to state, staunch all leakages as best we can.

# THE VETERINARY RECORD

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## PARACENTESIS THORACIS.

The recent references to this operation by Major Martin and Mr. Guy Sutton may possibly initiate something like a revolution in our general treatment of chest diseases. Speaking broadly, our profession's record with regard to paracentesis thoracis is not quite a creditable one. It has been classical teaching for a long time that the withdrawal of pleuritic effusions is more likely to be successful if practised early than if delayed. But men in practice, when they have punctured at all, have not usually done so until very late. Many an experienced clinician has only tapped the chest two or three times in his life, has done so almost as a last resort, and, having regularly failed, condemns the operation. There is no doubt that practitioners generally distrust puncture of the thorax; but it is possible that most of them do so through never having practised it at the right time. We could all name operations of recognised value that were once undeservedly condemned for the same reason—that they were seldom practised until too late.

Major Martin's results from the routine puncture of the chest in all cases "directly the breathing is really distressed" are highly encouraging. When fluid has been found, the upshot has been uniformly successful; when it has not, no ill effects have been traceable to the puncture. But it will be noticed that Major Martin's initial puncture has always been a diagnostic one; he has not waited for clinical indications of the presence of fluid. He punctures on the chance that fluid may be present, with the certainty of doing no harm if it is not; and most men will agree that this early puncture is the only method of ensuring a really early withdrawal of fluid. There is a great deal to be said in favour of the procedure, and it deserves extensive trial in civil as well as military practice.

One really serious obstacle to the introduction of early tapping into private practice has already been mentioned by Mr. Guy Sutton, and will be obvious to all. In very many cases no fluid will be found, and then trouble with the client may follow. Much of this difficulty could be avoided by a little forethought. It might be necessary to exercise some discrimination in selecting the client. It would certainly be necessary to explain to the client the reasons which lead us to explore a horse's chest for fluid before a clinical examination reveals any; and this explanation should not often be difficult. It will be least difficult for the practitioner who is least addicted to making extravagant pretensions to diagnostic skill before his clients. The fact is that we ourselves, and our fathers before us, have made a great many of our present difficulties with clients by teaching them to expect omniscience from us.

## AN ABNORMAL LAMB'S HEAD.

The birth of what are commonly known as "monstrosities" in the ruminants is not by any means uncommon, but in the majority of cases the abnormality consists in the possession of additional limbs, an additional complete trunk or other parts. On the other hand the suppression of a part is rather more rare, and in the case to be described the lower jaw is totally wanting.

The lamb under consideration was born naturally and at full time, and lived for about ten minutes, a further existence was impossible as will be evident from the following description.

Fig. 1, which shows the under surface of the head, will give some idea of the appearance of the part prior to dissection. There appears to be a complete absence of the lower jaw together with the tongue, but the upper jaw seems perfect except that the molar teeth approximate more nearly than usual, as can be felt through the skin. The oral cavity, reduced in size by the loss of the inferior maxilla, is covered in underneath by normal skin continuous with that of the head and tightly stretching from one maxilla to the other, except at a point corresponding to about where the commissure of the lips would have been had the lower jaw been present. From here forward an oval space is left, bounded by the edge of the upper lip in its greater part, and exposing to view the hard palate and dental pad. The superior or buccal surface of the bridge of skin appears to be lined by normal mucous membrane.

The ears have the appearance of being set on the head at a lower level than is usual, and the annular cartilage at the base of each is incomplete on its internal side, resembling, therefore, a C rather than an O. Between the breaks in the two annular cartilages there extends a narrow slit or cavity divided into two parts in its depth by a ridge, on the edge of which the skin terminates abruptly, its place being taken by mucous membrane. At a point about an inch posterior to the slit, and on the inferior surface of the neck the skin is elevated into a soft swelling.

On removing the bridge of skin stretching between the superior maxillæ, a bilobed gland is observed, partly free and in part protruding from beneath a thin, tight, transverse muscle covered with aponeurosis. This gland would appear to correspond with the submaxillary glands, and possibly the muscle may be the displaced masseters. On making a longitudinal incision in this muscle its internal surface is found to be covered with normal buccal mucous membrane continuous with that covering the crown of the molar teeth, which have



not yet penetrated it, and reflected inwards to form the floor of the mouth cavity. This cavity comes to a blind end almost immediately behind the level of the posterior molar teeth. In it there is no trace of laryngeal or oesophageal opening, and neither is the posterior nares present. Between the incurved posterior molar teeth projects backwards a small, free, fleshy finger-like body—an aborted soft palate.

The skin having been further removed the annular cartilages of the ears are found to be connected by a thin, narrow band of cartilage, about  $\frac{1}{4}$  of an inch wide, posterior to the opening before mentioned. The swelling on the underside of the neck now appears as a thin-walled cavity, in the interior of which the larynx can be felt, continued by a normal trachea. Its walls are evidently supported by the hyoid bones, which are found to be complete. The great cornu is, however, directed downwards and backwards from its connection by means of fibro-cartilage, with the hyoid process of the petrous temporal bone of the skull. Examination of the interior of the cavity shows it to be a sac into which the larynx and oesophagus open, but anteriorly it is blind, and only shows, instead of an opening to the external air, a small, round depression. It is lined by smooth, shiny mucous membrane, except where a small, papilla-like body, about 1-3rd of an inch in length, projects backwards towards the laryngeal orifice. Here the shiny mucous membrane is replaced by that bearing filiform papillae, such as is seen on the normal free portion of the tongue, and this leads one to suppose that this little body is in reality an undeveloped and misplaced tongue. It can be easily inverted, and appears to be an evolution of the mucous lining of the sac, which evidently corresponds to the pharyngeal cavity.

Fig. 2 shows the skull from which the soft structures have been removed and Fig. 3 the skull of a normal newly-born lamb for comparison.

On examining the under surface of the abnormal skull it is seen to be compressed from side to side towards the central line. The molar teeth almost face inwards, and the palatine plates of the superior maxillae are very narrow. The right palatine bone has only a narrow, flat palatine surface, the left presenting a sharp inferior ridge. Both are very much reduced in size. The pharyngeal opening of the nasal cavity is non-existent, the pterygoid bones on either side coming into close apposition, apparently because of the partial suppression of the vomer and the almost total absence of the pre-sphenoid. The body of the post-sphenoid is reduced to extremely small dimensions, if it is not entirely absent, and the bone appears to consist of the two wings which closely approximate, as do also the sub-sphenoidal processes. The basilar process of the occipital bone is much reduced in size, and presents depressions on its inferior surface for the accommodation of the petrous temporals.

The most striking abnormality is seen in connection with the petrous portion of the temporal bones. The auditory bullae are fused together and there is no intervening cartilage. The point of union has the appearance of a thick pillar of bone, with diverging wings at its base and showing a median groove on its anterior surface. This bony partition

separates two large openings, the mouths of which are directed forwards, and which correspond to the opening through the skin at the base of the ears previously mentioned. These are the two external auditory meati: from their depth the small bones of the middle ear were extracted. In the normal skull the hyoid process is situated immediately superior to the external auditory meatus of the same side (the head being held in a vertical direction and the base of the skull forward), in the skull under discussion it has a supero-external position in relation to this opening and occupies much the same position as in the normal skull, except that it is nearer to the median line of the head, and internal to the styloid process of the occipital bone. The zygomatic process of the squamous temporal bones presents no smooth surface for articulation with the condyle of the lower jaw. (The latter is absent).

The foregoing description recounts only the major departures from the normal; a more minute account would take into consideration many others.

It would seem that the suppression of the lower jaw in the foetal lamb is not absolutely unique, as a few days after the specimen described was received another was sent me bearing precisely the same external appearances. Examination also revealed the same abnormalities, except that the undeveloped tongue was rather larger, the auditory bullae, separated by a plate of bone, formed an arch over a single auditory meatus, or rather the two meati thrown into one, as the one cavity contained the two sets of bones of the middle ears. This foetus also was born alive and lived for a few minutes. Examination of the body revealed no abnormality. The lungs were in a condition of foetal atelectasis, and the trachea, oesophagus and stomach filled with clear, yellow foetal fluid. I am told by the shepherd from whom I obtained the specimens that he remembers seeing a similar case some years ago.

E. G. HASKELL.

Taunton.

#### AN EXPERIMENT WITH ESERINE

In reply to "Junior's" article, *re* his experience with Arecoline hydrobromide, I would like to give him an account of a case in which I tried a drug of very similar action—Eserine, in the hope that he will find it of interest. The following account is taken from a record I made of the case at the time and which I still possess.

I was called one evening to a case of impaction in a Devon steer, two-years-old, which had recently been housed and was being fattened. The day before he had been noticed to be off his feed and in pain, and had not passed any faeces for many hours. The owner had administered one pound of Mag. sulph. and a pint of Ol. lini. He had also given an enema, and back-raked the animal, obtaining a small quantity of faeces which were hard and mucous coated.

Up to the time I was called in, some twenty-seven hours later, the purgatives had not acted. The symptoms were, head extended, breathing



rapid and shallow, with groaning. The visible mucous membranes were injected, pulse 65 per minute, and weak, temperature 103°F. The rumen was not very distended, but there was slight tympany. The abdominal muscles were tense, and there was violent muscular trembling. On auscultation there was an absence of peristaltic sounds. The rectum was empty save for a little blood. I account for the presence of this blood by the fact that in giving the enema the owner inserted the unguarded nozzle of a large metal syringe into the rectum.

**Treatment.** First a drench containing Ammon. carb. ʒi., Nucis vom. ʒi. in water. As I had long desired to try the action of Eserine on cattle, I administered Eserine gr. i. (Parke, Davis & Co's pellets dissolved in boiled water) hypodermically. In half-an-hour the pain increased, accompanied by loud groaning and hard blowing. The steer went down, but with some assistance he was got on his legs again, and was kept standing. In forty-five minutes from the time of injection of the Eserine about a single handful of faeces, slightly firmer than normal, were passed. At the end of an hour he seemed easier and was very quiet. During that night and the next day he passed small quantities of thin faeces at intervals, and appeared quite easy but dull. A stimulant drench was administered, Turps. and Ether aa. ʒi., Ol. lini., Oj. On the third day he passed a normal lot of faeces and was not seen again. The symptoms of pain shown were rather alarming, but I have not been discouraged, and I think that a grain of pilocarpine injected first and then a somewhat smaller dose of Eserine about fifteen minutes later, would give better results.

G. O. RUSHIE GREY, CLASS D.

Royal Vet. Coll., London.

## ABSTRACTS FROM FOREIGN JOURNALS

### EPIDEMIC ARTERIO-SCLEROSIS OF THE SHEEP.

Dr. José Lignières, in 1898, published the results of his first studies of a very curious affection which is observed in the epizootic form in the cattle, horses, and sheep of certain regions in the Argentine Republic. He now publishes (*Revista Zootécnica*) his more recent researches upon it.

In cattle, the disease has been known for a long time under the name of 'entèque,' a word signifying "consumption" or "decline"; and the characteristic lesion is a spongy ossification of the lung. Lignières, however, has demonstrated that the pulmonary lesion is not the principal one, but that there is also more or less generalised arterio-sclerosis. In the horse, the pulmonary ossification is not found; and in sheep, which are also affected with chronic arteritis, the lung lesion is usually absent. Quite recently, however, Lignières has found it during an epizootic of this disease affecting Lincolnshire sheep in the province of Buenos Ayres.

**Symptoms.**—Generally the animals appear in good condition, though some are cachectic. It is very easy to recognise the affected ones; for, if the flock is driven rather quickly, those affected lag behind, and show difficulty of respiration and agitation of the flanks.

Death may occur during rest, suddenly and sometimes without any death agony. Deaths may be produced at will by driving the affected sheep at a quick run for a certain time.

**Post-mortem lesions.**—There is rapidly occurring tympany of the carcass, as in anthrax. Dark patches are found under the skin. The serous cavities often contain a clear citron or a reddish fluid. Congestion of the liver, spleen, and kidneys is frequent. The lungs are infiltrated, oedematous, congested, and hepatised in various places; and, when they are palpated, it is sometimes possible to feel hard needle-shaped bodies which break easily and represent the lesions of spongy ossification of the lung. The aorta is hard and thickened, with lesions of arterio-sclerosis, sometimes very highly developed, at its base. These lesions explain the deaths occasioned by violent and prolonged movements.

The disease especially attacks adult animals, has a duration of months, and is particularly mortal during the winter. Lignières saw 700 out of 6000 sheep die between May and October, 1910.

In the numerous cases he has observed, Lignières has undertaken bacteriological researches and made many experimental inoculations, but without result. Dr. Frédéric Sivori has attributed the disease to the agency of the bacillus of Preisz-Nocard. Lignières, however, finds that this bacillus is not constant in the lesions; in five cases which were particularly well observed, it was absent. He therefore regards Sivori's view as erroneous.

From his numerous observations, Lignières concludes that "entèque," the symptoms and course of which are well known, is caused by a germ not yet determined; but the condition may be regarded as a microbial disease of intestinal origin.—(*Annales de Méd. Vét.*)

### CUTANEOUS SARCOSPORIDIOSIS IN A COW.

It is admitted that the sarcosporidia most frequently cause no trouble to their hosts, and, even when infestation is massive, are merely post-mortem findings. No example of parasitism of the skin by these protozoa exists in the literature. Besnoit and Robin, however, now record (*Revue Vétérinaire*) a case of cutaneous disease due to a species of *Sarcocystis* which they studied in a cow.

The cow was ten years old, and had been delivered to the Toulouse Veterinary School to serve for the practice of surgery. Except that the animal was only moderately nourished, her general condition was satisfactory; but partial depilations, in the region of which the skin was thickened, were noticeable upon the superior portions of the body. The udder was very small and shrivelled, the skin covering it was thickened and sclerosed, and the

teats appeared "soldered together" in lateral pairs. Irregular "embossments," variable in volume, and generally separated by crevices, were found upon the surface of the organ. The skin upon these nodosities was sometimes pink and normal, sometimes covered with whitish mealy scales. A considerable portion of all four limbs, the dewlap, the head (especially the forehead) and the ilial and ischial points showed analogous cutaneous lesions.

As these symptoms resembled no classically described affection, it was decided to remove some fragments of skin for histological examination. This showed incontestably that a parasite belonging to the group of *Sporozoa* was present in the lesions. The bodies observed under the microscope were spherical or slightly elongated, and were formed of an external envelope or cuticle surrounding a central mass of granular aspect, which was constituted of an enormous quantity of falciform or reniform spores. This structure corresponds to that of the group of sarcosporidia, and the authors therefore class the parasite with the genus *Sarcocystis*.

The authors have unsuccessfully attempted to infect various species of animals. In the cow, subcutaneous inoculations, inoculation by scarification, insertion under the skin, dermo-epidermic grafting, and injection into the udder have all failed. Attempts to infect laboratory animals (rabbit, white rat, and white mice) by the digestive tract have also yielded negative results.

The authors have found that a glycerine extract, obtained by crushing fragments of the lesions in glycerine, has toxic properties. It is rapidly fatal to the rabbit, but the guinea-pig and the white rat, on the other hand, support massive injections without injury.

The negative result of the attempts at infection renders it impossible to determine the origin of this disease.—(*Annales de Méd. Vét.*)

W. R. C.

## THE METHODS BY WHICH SOME OF THE HIGHER ANIMAL PARASITES PRODUCE THEIR INJURIOUS EFFECTS.\*

By A. W. NOËL, PILLERS, F.R.C.V.S., F.Z.S.

Although we have long since passed the days when ento or ectozoa were regarded as being beneficial to their hosts, we have not in many cases given sufficient attention to the exact methods whereby their injurious effects have been produced. Research in this direction is very desirable, because, apart from being of academic value, it must lead us into some useful channels of immediate prophylaxis. So far as the worms affecting man are concerned, Shipley and Fearnside (1) have grouped their injurious effects under four headings; to these we may add a fifth. They are as follows:—

1. Injury caused by the mere presence of the parasite.
2. Injury caused by the migration of the parasite.
3. Injury caused by the parasite feeding upon the tissues or "juices" of the host.

4. Injury caused by toxins said to be eliminated by the parasite.

5. Injury due to the transmission of disease producing micro-organisms by the parasite.

When considered from the point of view of the method whereby the parasite produces its injurious effects, it must necessarily follow that some of the parasites will fall into more than one of the groups. Thus the mere presence of the adult flies of *Hypoderma bovis* causes a fall in the milk supply of animals it has been trying to alight upon, as well as cedema and perforation of the skin of the back when its larval form is about to complete its migration through the affected animal's body. However, I think the subject can be better appreciated under these five headings than by considering the parasites individually.

### INJURIES CAUSED BY THE MERE PRESENCE OF THE PARASITES.

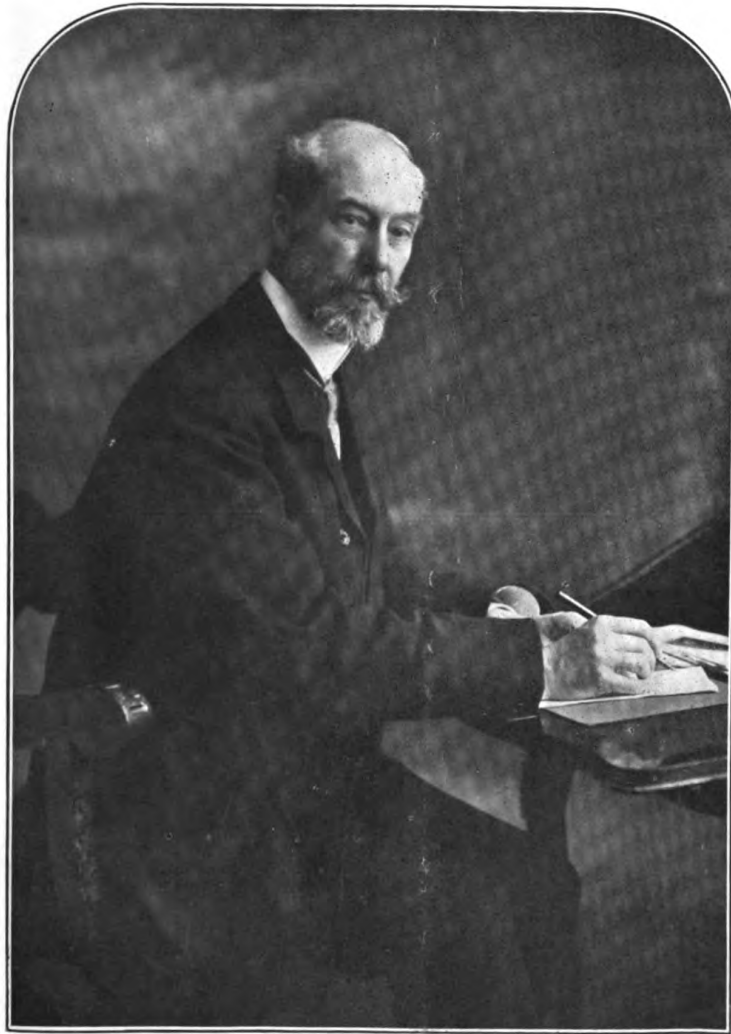
Although the ectozoa form such an important group of obnoxious parasites, when their injurious effects are carefully looked into, they will in many cases be seen to fall into one or other of the remaining headings. This is so with the three groups of mange mites. But the mere presence of any of the flies from which animals have learnt to escape tends to produce stampedes which may lessen the milk supply in cattle, or cause accidents in beasts of burden.

The presence of the adult form of *Linguatula tenuioles* in the nasal fossæ of the dog causes reflex sneezing, and by its irritation the secretions of the mucous membrane are increased. Cobbold (2) explained the death of a dog which went out in the cold air by the migration of these parasites lower down the respiratory tract. The larval stages of *Oestrus ovis* when producing symptoms act in a similar way.

In the horse, calf, and pig, large numbers of adult worms block many of the larger bronchioles, and so by their mere presence give rise to collapse of the lung tissue supplied by that vessel. Other effects are witnessed, but I have seen pigs infested with *Metastrongylus apri* (*Strongylus parvulus* in part) to such a degree that a great part of each lung was non-functional. I have recorded a somewhat similar case of an ass affected with *Dictyocaulus arnfieldi* (*Strongylus arnfieldi*) (3) Perhaps a better example still is *Syngamus trachealis* of the fowl's respiratory tract. Generally speaking, amongst the round, flat, and tape worms, the extent of injury produced depends upon the position in the body that they take up; the anatomical characters of the parasites cannot however be neglected. The larval stage of *Multiceps multiceps* (*Coenurus cerebralis*) in the brain of the sheep causes profound trouble by pressure as it increases in size, whereas a very similar hydatid *Multiceps serialis* (*Coenurus serialis*) in the sub-cutaneous or inter-muscular tissue of the rabbit's back gives rise to insignificant changes.

In the muscular tissue of the pig *Cysticercus cellulosæ* seems to produce little or no trouble. In the eye, however, the effect is naturally more serious. *Echinococcus* cysts when small and only two or three in number produce very few changes, but great loss of tissue and increase of weight are seen when the infestation of the liver or lungs is a bad one. The presence of *Filaria immitis* interlaced among the chordæ tendinæ of the dog's heart causes dyspnoea, convulsions, and sudden death, from its mechanical interference with the circulation. The arrestation of *Diectophyme renale* (*Eustrongylus gigas*) in a kidney is sufficient to lead to the destruction of that organ with consequent hypertrophy of the other one. *Echinorhynchus gigas*, a rare nematode of the pig's small bowel in this country, in its attempts to secure itself, often perforates the bowel wall, with such results as to render the "skins" useless for sausage manufacture.

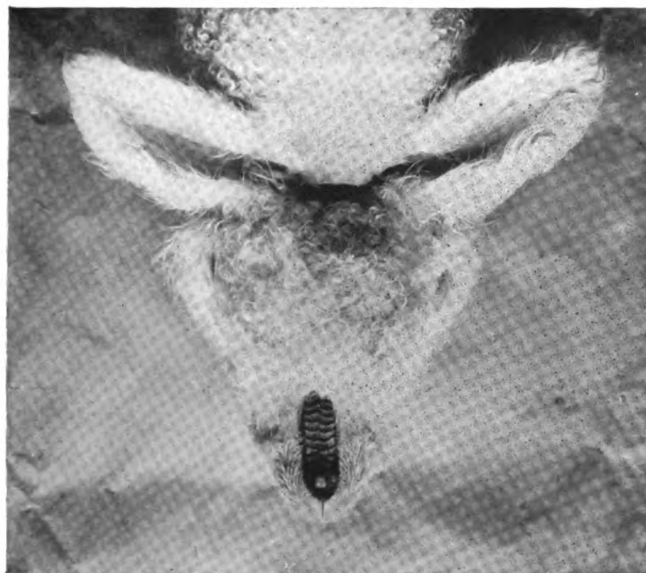
\* Presented at the Midland Counties Veterinary Medical Association at Birmingham, on Feb. 14th.



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CHIEF INSPECTOR, VETERINARY BRANCH,  
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(1) Under surface of lamb's head.



(2) Skull : soft structures removed.



(3) Skull: normal.

AN ABNORMAL LAMB'S HEAD.

*Illustrating note by E. Granville Haskell, M.R.C.V.S.*



Generally speaking, the mere position of nematodes and cestodes in the alimentary canal does not give rise in itself to important troubles. Yet *Ascaris* in the various animals has produced mechanical impaction, and Descomps (4) recorded a case where 15 litres of *Ascaris vitulorum* caused rupture of the bowel. Other cases of a similar nature have from time to time been recorded.

#### INJURIES CAUSED BY THE MIGRATION OF THE PARASITE.

The damage done by parasitic species under this heading, so far as the veterinarian is concerned, is very important. The migration may be a natural one, such as the passage of an immature *Cysticercus tenuicollis* through the liver on its way to the abdominal cavity, or an unnatural one, as, for example, the journeying of bots of *Gastrophilus* through the horse's brain. The "flitting" may be further more unnatural, such as the passage of adult species of *Ascaris* or *Taenia* into the abdominal cavity. The wanderings have to be considered apart from the micro-organisms which they may convey, because that is dealt with under the fifth section of the paper. Among cattle, *Hypoderma bovis* just before it leaves its host produces an oedema of the subcutaneous tissue of the back, rendering it unmarketable, and "licked" in the meat inspectors' phraseology, and the hole in the hide produced for the warble's exit greatly lowers the value of the hide. One might be inclined to think that farmers would take action against this fly. During the migration of *Trichinella spiralis* through the muscles of man there is severe pain accompanied by fever, and these phenomena must be experienced by the lower animals. There is observed in India an intra-ocular filariasis of the horse. The disturbances in vision are due to the movements of an immature worm in the aqueous humour, and which is believed to be a stage in the life cycle of *Filaria equi*.

The arrest of immature forms of *Strongylus vulgaris* (*Strongylus armatus* in part) at their "predilection seats" in important arteries supplying the large bowel leads to endarteritis, thrombosis and the formation of an aneurism. Although the walls of these aneurisms are thick they have been recorded as rupturing (5), and works have been written to describe the colics resulting from embolism, due to the disintegration of the primary thrombus in the affected artery (6).

It appears possible that a fresh reading up of the blood supply to the bowels, together with the pathology of verminous aneurism would do none of us any harm. *Oxyuris mastigodes* can often be seen after it has migrated to the anus, where it causes much irritation evinced by uneasiness, stamping, swishing, rubbing and flapping of the tail, leading to the crushing of the female and dispersal of the eggs (7), a state of affairs eminently satisfactory for the completion of the life cycle of this species. *Trichuris ovis* (*Trichocephalus affinis*) of ruminants is usually stated to be more or less harmless, but the depth to which its head may penetrate the caecal walls suggests that it is possible for organisms to gain access to the peritoneum. This accusation has already been made by Metschnikoff (8) against *Trichuris* of man in the etiology of some cases of appendicitis. In the bowel of American sheep one often comes across lesions due to immature forms of *Oesophagostomum columbianum*. Bowels so affected are usually known as "pimply-guts," and are useless. The immature worm enters by the mucous coat and remains in the bowel wall until lesions the size of nuts are produced.

The worms may go further and become encysted in the mesenteric lymphatic glands, these are thereby weakened, and the bowel is rendered more liable to bacterial invasion. Immature forms of the various

species of *Cylicostomum* (*Strongylus tetracanthus*) encysted in the bowel wall of the horse are responsible for somewhat similar state, of which we often hear in the course of country practice. We have examples of the wandering of adult worms in *Ascaris*. The species of the pig has often been recorded, and blamed for causing death by leaving the small bowel, travelling into the liver, and rupturing its capsule (9).

Among cestodes it is quite common to find rabbit tapeworms piercing the bowel wall, the head being in the peritoneal cavity, and the hole tightly filled by the middle portion of the strobile. I believe the first running rabbit that I shot was so affected, and this was given as a cause of the animal's slowness. Similar perforation cases have been recorded with regard to *Taenia serrata* of the dog, by Cadéac and Lahogue (10). As an example of an abnormal migration the presence of larval *Oestridae* in the brain may be mentioned. *Gastrophilus* larvæ have been recorded from this position on several occasions, the symptoms being those of erratic movements, with death in about four days, or of an acute apoplectic and fatal type (11). Numerous other cases of migration could be mentioned under this section.

#### INJURY CAUSED BY THE PARASITE FEEDING UPON THE TISSUES OR JUICES OF THE HOST.

The tendency in the past has been perhaps inclined to over-estimate the damage done in this direction by parasitic species. This, however, does not mean that little or no importance should be attached to it. Although we often describe cases of mange as being "eaten alive" it is doubtful whether we ought to discuss the mange mites here. Lice belonging to genus *Hematopinus* certainly do suck blood, and in the case of severe infestations, such as we see on the horse and pig, the amount of blood taken daily must be considerable—in addition to the demand for more, which increases in a geometrical ratio. To this must be added the irritant action of the biting. Remarks of a similar kind may be made with reference to the blood sucking flies, and leeches. A veritable case of being eaten alive is the consumption of the flesh of the sheep by the larvæ of the "Green bottle blow fly" (*Lucilia sericata*). With regard to the entozoa, common observation has it that worms call forth an increase in the appetite, and it is suggested that this increase in many cases makes up for the loss of food which has been assimilated by the parasite. If we estimate that a female *Ascaris megalocephala* is capable of producing just between 1½ and 2 ozs. of eggs in a year, and take into consideration the great numbers of these worms which a horse may harbour, then we must admit that a certain amount of the animal's ingesta has been used up to produce them, in addition to that required for the worm's vital processes. I have found females of this species weighing just under 4 drms. Delamotte (12) found 1215 specimens which weighed just over seven pounds in one animal.

In bad infestations of lambs by *Moniezia expansa* (*Taenia expansa*) one does not like to pass over lightly the possible loss to the host of ingesta taken up by the parasite by cutaneous osmosis. The adult worm is often 9-12 feet long, a great number may be present, and these are daily giving off segments. In old animals intestinal nematodes do not produce so grave symptoms as they do in young ones. Infections by the various species of *Strongylus* and *Cylicostomum* of the horse are examples, but there are factors other than the loss of food to a growing animal to be considered here. In parasitic gastro enteritis of ruminants there may be great numbers of *Trichostrongylus*, *Ostertagia* or *Haemonchus* present but all the symptoms cannot be attributed to materials extracted from the aliment or bowel wall.

There yet remains much work to be done on the subject of the food of many of the intestinal worms. Looss (13) has already shewn that, contrary to the generally accepted doctrine, *Anchylostomum duodenale* feeds on cells of the mucous membrane of the bowel, and that the ingestion of blood is accidental. The removal of the superficial cells and wounding of the mucous membrane is possibly one of the most harmful effects of helminthiasis, be it of trematode, cestode, or nematode origin, and will be dealt with later on. Other species could be mentioned under this heading, but enough has been said to shew that it is not altogether negligible.

#### INJURIES CAUSED BY TOXINS SAID TO BE ELIMINATED BY THE PARASITE.

With the rise of bacteriology, and so much work on bacteria and their toxins, it is unnatural that this line of thought should be developed in connection with the higher animal parasites. It has to be remembered that the toxins elaborated by certain bacteria are complex chemical bodies, and that no special parts have been described as making them; and although we use terms such a "manufacture" we cannot see where they are made.

Among the ectozoa, the pruritus caused by the mange mites is attributed to substances they produce. The sarcopt of man (*Sarcoptes scabiei hominis*) is not felt even when it burrows. Bourguignon (14) produced a vesicular eruption by inoculating the skin with fluid derived from acari. Gerlach (15) classed the severity of the mange mite toxins in the following order:—

(1) *Psoroptes*. (2) *Sarcoptes*. (3) *Chorioptes*.

He crushed some acari of each of the above groups and then passed a fine needle into the epidermis, this was then moistened with the fluid and replaced in the groove. Pain was produced when the derma was reached, and this was followed by vesication. This accounts for the intense pruritus often seen in thin skinned animals.

Among the entozoa various clinical pictures and post mortem findings have long suggested etiological factors other than their mere presence, or absorption of the host's food. The chief symptoms which support the toxin theory are those of anæmia, and cerebral disturbance. As an example of anæmia one may instance the changes in the blood of persons affected with *Anchylostomum duodenale*. This worm produces changes in both the red and white corpuscles. Boycott and Haldane (16) have worked on the subject in this country. The actual volume of blood is increased, the red cells are greatly decreased in number, so is the quantity of hæmoglobin, and the colour index, and there may be present normoblasts and megaloblasts.

All authorities admit that the eosinophile leucocytes are greatly increased in number, producing a condition known as "eosinophilia"; especially is this so in recent infections. Looss points to the cephalic glands as the originators of the toxin of the above species. The blood of persons bearing many other species has also been proved to suffer from eosinophilia.

With regard to dog *Anchylostomum*, Neumann (17) states that there is diminution in the number of red corpuscles and that leucocytosis is marked, and when the anæmia is rapidly developed it is sometimes accompanied by convulsions. Anæmia associated with other forms of nematode infection of the bowel has been observed in many of the lower animals; that associated with *Strongylus vulgaris* (*Strongylus armatus* in part) and the various species of *Cylicostomum* (*Strongylus tetracanthus*) being particularly well known. The small nematodes infecting ruminants also produce anæmia. With regard to nervous symptoms we have many observations, with many explanations of their origin. The presence of *Belascaris marginata* (*Ascaris marginata*)

in only moderate numbers is generally held to be a cause of convulsions in puppies. Some assert that their mechanical action on the mucous membrane is sufficient to produce these, whilst others attribute the symptoms to the absorption of toxic products. In considering the subject one has to bear in mind the closeness of the brain and stomach in clinical pictures of this kind.

Dieckerhoff (18) has described a case of a horse which showed peculiar tetanic symptoms several times a day, and which was relieved soon after the passage of a number of *Ascaris megalocephala*. Many cases have been described of persons experiencing discomfort when dissecting *Ascaris*. It usually takes the form of excessive lachrymation due to a peppery odour which is given off by the worm. I once killed a ten weeks' old pig which shewed convulsions as it approached its food and found only three specimens of *Ascaris* in the small bowel. At the time I was inclined to attribute the symptoms to excessive activity on the part of the worms, this being caused by the secretion of digestive juices. Extracts *Ascaris megalocephala* have killed a guinea pig in forty hours (Vaullegeard).

Among trematode infections, liver rot of sheep (*Fasciola hepatica*) is associated with very marked anæmia, and it is difficult to see how the flukes themselves consume sufficient blood to produce so severe a form.

The rupture of an *Echinococcus* cyst in man is often associated with urticaria, and it would be interesting to know if any of the cases seen in our patients are of that origin. Human beings affected with the tape worm *Dibothriocephalus latus* show an anæmia which differs only from pernicious anæmia in that it disappears when the worm is voided (19). Schauman and Tallquist (20) produced grave anæmia in a dog with extracts of this parasite, but failed to do so in a rabbit. Some authorities believe that the toxin only acts on the host when the worm is dead. Our patients often harbour cestodes without showing any inconvenience. When nervous symptoms have been recorded Cadéac and Lahogue (10) from tape-worm infestations there has usually been some recognisable damage to the endothelial lining of the bowel. That certain of the higher parasites have effects of a more remote nature than those produced in the bowel is further shown by the demonstration of an antibody in persons harbouring *Echinococcus* cysts. Under another heading it was suggested that the removal of portions of the mucous membrane by parasites opened up important channels for the production of obscure symptoms. Irrespective of bacterial invasions, there must be exposure of nerve tissue and the absorption of unfit products in an unnatural way. Enough has been now said upon this section.

#### INJURY DUE TO THE TRANSMISSION OF DISEASE PRODUCING ORGANISMS BY THE PARASITE.

The trouble caused under this heading is of course only indirectly due to the higher parasite, but it is chiefly by virtue of this transmission of disease by flies and ticks that parasitology has acquired so great an importance. In human medicine the mosquito and malaria parasite, the tsetse fly and sleeping sickness, and many other examples are familiar to you. In our own country we have the transmission of *Piroplasm bigeminum* (Red water) by means of the tick *Ixodes ricinus*. In our colonies the tsetse flies (*Glossina*) and ticks are still more important in the spread of trypanosomiasis and piroplasmoses respectively. Recent work on what the house fly (*Musca domestica*) is capable of doing has become popular and has even reached our daily papers. Although the list of diseases spread by flies and ticks is at present considerable, it will no doubt be greatly augmented in the future.

Louping ill has long been noticed to be associated with the presence of ticks, and experiments have been conducted to see whether the pig louse (*Hæmatopinus*)



*urius*) (21) is capable of spreading swine fever. In man certain worms have been shown to be fly transmitted, and some genera of the tissue worms of the lower animals are likely enough spread in the same way, e.g. *Onchocerca*, *Filaria*, and perhaps the equine *Spiroptera*. In every case where a solution in the continuity of the skin or mucous membrane is made by an anthropol or helminth the possibility of bacterial invasion cannot be dismissed, and there is to many minds no doubt that infection of the bowel often takes place in this way. Many cases of enteritis are so explained, and tetanus has been many times attributed to infection through parasite wounds of the intestinal tract. The material around the encysted immature nematodes of the horse's large bowel often contains pus and its organisms. If the bowel wall is penetrated the chance of infection is, of course, greater. The bacterial flora of the digestive tube and cysts of some parasites has already been investigated with promising results (22).

It follows from what has been said above that the migration of the larval forms of cestodes and nematodes from the bowel is a further possible source of bacterial infection.

Gentlemen, the whole object of my paper, disjointed and imperfect as I know it is, has been to show you that the association of parasites with almost any clinical picture should cause you to meditate over the remote symptoms and effects which they may produce. Having done this you can dismiss or incriminate them as your judgment thinks fit.

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Mr. Robert Long, of Stondon Manor, as well known in Bedfordshire as is Mr. Walter Long in rural England generally, gave an agricultural toast the other day which was received with "three times three." It was "Fewer Officials and Finer Weather."—*Standard*.

## ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

The Annual General Meeting took place on Friday Jan. 31, at the Great Western Hotel, Reading, and the gathering was, as usual, thoroughly successful. The President (Mr. David Wyllie, of Staines) took the chair at 2.15 p.m., the other members present were Messrs. J. C. Coleman, Swindon, and J. Willett, London, Vice-presidents; G. P. Male, Reading, Hon. Sec. and Treasurer; W. T. D. Broad, Marlborough; H. S. Dunn, Reading; H. C. Jagger, Bicester; E. J. Mellett, Henley-on-Thames; Capt. O'Rorke, Arborfield, Reading; Mr. J. H. Parker, Faringdon; Capt. G. Rees-Mogg, Windsor; Messrs. Percy J. Simpson, Maidenhead; S. H. Slocock, Hounslow; R. C. Tennant, Windsor; R. J. Verney, Oxford, and Mr. W. Hunting, honorary associate.

Letters and telegrams expressing regret at inability to attend were announced by the Hon. Sec. from Sir J. M'Fadyean (now in India), Sir Stewart Stockman, v.p., Mr. G. E. King, Mr. R. Page Ball (who enclosed with his subscription a cheque for £3 3s. for the International Congress). Mr. A. L. Butters (the Hon. Treasurer who had never previously missed a meeting of the Society, but was very unwell), Messrs. J. Varney, S. Villar, Col. C. B. M. Harris, D.S.O., J. R. Baxter, L. Barnard, H. P. Standley, Prof. McCall, J. East, W. Shipley, John Hatch, and J. Sutcliffe Hurndall, and also from Mayor of Reading (Ald. C. G. Field).

#### FINANCIAL.

The HON. SECRETARY (in the absence of Mr. Butters) submitted the audited statement of income and expenditure for 1912, a copy of which was sent to each member. He also read a letter from Mr. Butters stating that the accounts were in perfect order, but that the balance at the bank was £3 8s. more than the balance shown on the statement, owing to certain accounts not having been presented for payment.

The report was adopted on the proposition of Mr. Mellett, seconded by Mr. Slocock, both gentlemen expressing regret at the cause of Mr. Butters' absence, and appreciation of his valued services to the Association.

The HON. SEC. said he thought the Association was in a prosperous condition. There were five new members and only three resignations. The balance in the bank was fairly good, and £5 had been paid in subscriptions immediately after the balance-sheet was audited. The grant to the Victoria Benevolent Fund was an annual one, and would be paid each year unless the Association decided otherwise.

Another annual charge would be 1/- from each member to the National Veterinary Association.

#### MEMBERSHIP.

Capt. GRAHAM REES-MOGG, 1st Life Guards, Windsor, proposed at the last meeting by the Hon. Sec., seconded by Mr. Tennant, was unanimously elected a member of the Association.

W. C. HAZELTON, M.R.C.V.S., Buckingham, was proposed by Mr. Jagger, seconded by Mr. P. J. Simpson, for election at the next meeting.

Mr. G. H. WILLIAMS, Chippenham, was proposed by Mr. Coleman, seconded by Mr. Willett.

The resignation of Mr. J. A. Todd, of Worthing, was received with regret.

#### PLACE OF NEXT MEETING.

On the proposition of Mr. Coleman, seconded by Mr. Willett, it was unanimously resolved that the next (April) meeting of the Association be held at Swindon.

## SANITARY CONGRESSES.

Discussion followed on the resolution moved at the last meeting of the Association by Mr. J. Willett on this subject as follows:

"The Royal Counties Veterinary Association views with much dissatisfaction that according to the reports of their delegates to the Sanitary Congresses, the resolutions arising from the debates of the Veterinary Section are not embodied in the reports of the Congress owing to the said debate being held on the last day. They are of the opinion that no further delegates should be sent unless better facilities are offered."

The PRESIDENT said he understood that the matter affected them somewhat as a profession, as at recent Sanitary Congresses it had been a sore point among veterinary delegates to find all their work relegated to the very last day, and not put in with other matters which seemed to take more the attention of the Congress. He thought it quite right that something should be done, and that Mr. Willett's action was in the right direction—to improve the position of the profession at those gatherings.

Mr. WILLETT said it was not his wish that they should cease sending delegates to the Sanitary Congresses, which undoubtedly did a great deal of good; but his objection was that veterinary matters were taken on the last day, when the attendance was very sparse. The crux of the matter was that when any resolutions were put on the last day and carried the Secretary of the Congress said that the Committee of the Congress had already sat, and therefore no resolutions could be received. That was a "lot of rot." (Hear, hear). He had reason to believe that other Veterinary Societies were moving the same way; and he thought that members of the National Society ought to be able to get the Veterinary Section of the Congress run concurrently with the medical and the sanitary engineers' sections. Otherwise the Veterinary Associations and their delegates simply wasted time and money. (Hear, hear).

Mr. P. J. SIMPSON said that having been the delegate of this Association last year, and experienced the difficulties which Mr. Willett had enumerated, he must say that it was disappointing not only to those who went as delegates but also to those who provided the papers, to have a vanishing audience. When a large paper came on at York there were only three or four in the room. He (Mr. Simpson) being a member of the Sanitary Institute and one of their Examining Board, had mentioned the matter; and he was sure that if it was brought forward it would be considered, and given adequate and proper thought, and that different arrangements would probably be made in time for the next year's Congress. If a copy of Mr. Willett's resolution—which he seconded—were forwarded to the National Association, with a request that action be taken, it would lead to good.

Mr. COLEMAN would like to reiterate what he said at the last meeting, when Mr. Willett's resolution was framed, that when he had the pleasure of representing the Royal Counties' Association at the Bristol Congress some years ago, the same thing happened. The Veterinary Section had always been at the tail end; and although a number of resolutions were proposed, seconded, and carried, they never appeared in print at all. He was strongly in favour of Mr. Willett's resolution being sent to the National Association.

The PRESIDENT said the position at present was very unsatisfactory from their professional standpoint. A vote of that kind, being sent to the National Association, would at any rate call attention in a very concrete form so the dissatisfaction existing among them owing to the present condition of things. (Hear, hear).

Mr. WILLETT called attention to the fact that there was a meeting of the National Council on the following Thursday, and suggested that if the resolution was forwarded at once it might alter the regulations for the coming Congress.

The resolution was carried unanimously.

## FEES PAID TO VETERINARY INSPECTORS.

The following circular letter was read from Mr. T. C. Toope:—

Dover, January, 1913.

Dear Sir,

In recommending the accompanying scale of fees the Council of the National Veterinary Association have requested me to point out that the fees are to be considered a fair and reasonable basis for negotiations with County Councils and other Local Authorities, under the Contagious Diseases (Animals) Acts, where and when, such may be locally considered advisable. They fully recognise that under some circumstances and in some districts, modification must necessarily arise, they hope, however, as far as is practicable, the scale will be adhered to in the attempt to bring about a better and more uniform remuneration to veterinary inspectors generally.—Yours very faithfully,

THEO. C. TOOPE, M.R.C.V.S.

Hon. Sec. Southern Branch N.V.A."

The PRESIDENT invited the views of members upon the scale of fees which had been suggested by the South Eastern Association.

The HON. SECRETARY congratulated the Sub-Committee, and especially their Secretary, on the drawing up of that scale of fees, which must have entailed a vast amount of work. He (Mr. Male) did not, however, agree with the suggested charge for applying the mallein or the tuberculin test as suggested in that scale. To test a cow, say, on the opposite side of the district was not, in his opinion, worth £3 3s., but they ought to get more reasonable fees than the County Councils at present paid. The scale before them would no doubt eventually get into the hands of Members of Parliament, County Councillors, and others interested in the promotion of the Milk Bill, and he thought such men would consider the fee suggested ridiculous. He (Mr. Male) felt that there should be a sliding scale, and he suggested that they should adopt the scale which was in force in Staffordshire and Worcestershire for glanders, viz., 21/- for the first case, 10/6 each for second and third cases, and 5/- each for further cases, the ordinary fees for mileage being also paid. With the scale suggested by the Committee if they went 50 miles and tested one cow or eight, they would only get the £3 3s.

Mr. P. J. SIMPSON, as the only member present of the National Committee who went into the matter, said the idea was that they were rather "shooting above the mark" with some of the fees suggested, but they felt that, while they might come down, they could not go up, and they were simply sent to the districts for discussion, and would not be scattered broadcast. A conscientious tuberculin test did not end with two visits—there ought to be three or four—and if they were going to make those visits, even to one cow, say ten miles away, £3 3s. was not an unconscionable fee to ask for. Under the Milk Bill there would probably be a good deal of testing, and it would be better to start with as high a fee as possible rather than to begin with low fees and then ask for an increase.

In reply to Mr. Male, Mr. Simpson said the £3 3s. did not include mileage.

Mr. MALE thought it ridiculous to ask for £5 3s. for testing one cow ten miles away.

Mr. SIMPSON added that the Committee were perfectly willing to listen to any suggestions.

Mr. MALE proposed that the word "tuberculin" be left out of the recommended scale, and that the fee for applying the tuberculin test be in the first case 21/-, in the second and third cases 10/6 each, and in every other case 5/-, mileage to be paid at the usual rates, viz. 1/- per mile one way.

This was seconded by Mr. Parker.

Mr. SLOCOCK said they must bear in mind that they were only one party to the contracts, and he felt sure that no local authorities would adopt the scale as it stood. They should congratulate the committee on drawing up that scale, but they could not enforce it. He was in accord with Mr. Male. (Hear, hear.)

The PRESIDENT said the matter was open to a great deal of discussion, but without a trades union they could not force what they would like upon the people who were paying. (Hear, hear.)

Mr. SIMPSON added that practitioners in Kent had just revised their scale, and had got practically all they asked for.

Mr. HUNTING pointed out that there was no mention of tuberculin in the Milk Bill or in the Tuberculous Order which was to accompany it. Three guineas for one animal, or even for two or three, seemed to him pretty stiff. The Irish people insisted on the mallein test for all horses going into Ireland, and they insisted on four or five visits.

Mr. Verney and Mr. Willett supported Mr. Male's views, and that gentleman's resolution was carried by 8 votes against 3.

It was then agreed, *nem. con.*, on the proposition of Mr. Willett, seconded by Mr. Simpson, that subject to Mr. Male's resolution all the other fees in the scale be approved.

#### SPECIMENS.

Capt. REES-MOGG showed four cervical vertebrae from a horse of his own which fell while hunting and died seven or eight days afterwards, although the bones were very badly fractured.

Mr. BROAD related the case of a 5-year-old mare, which had never been broken in, and which was found lying on the Downs. After being towed home she lay four or five days, without the sense to feed, and would not lie on her near side. When got up her head went just like that of a dog with chorea. Three hydatids were found in the skull (part of which he produced).

Capt. O'RORKE exhibited a horse's larynx, which had been operated upon for roaring with only partial success. A certain amount of contraction had taken place on the side operated upon, but not sufficient to completely remove the roaring noise.

Mr. P. J. SIMPSON showed a number of concretions resembling marbles in size and shape, from the guttural pouch of the horse, which had had strangles 12 months previously. The animal was doing well, although other concretions which he had not removed could be heard to rattle when the mare's head was turned.

The gentlemen who had brought forward specimens were very cordially thanked, on the proposition of Mr. Hunting, seconded by the Hon. Secretary.

#### THE MILK AND DAIRIES BILL (1912.)

Mr. G. P. MALE opened briefly a discussion on this measure, touching on those points which affect the veterinary surgeon. The Bill was, he said, an attempt to provide pure milk for the community at large, and at the same time to be as fair as possible to the milk producer, and he thought that Mr. Burns had on the whole fairly well succeeded. The measure was not an attempt to stamp out tuberculosis from the dairy herds—although that would be its effect in part—but an attempt to get a pure supply of milk. Unfortunately the Bill had been shelved for the present Session, but there was a promise that it might come on again during the next Session of

Parliament. He thought it had been fairly well received by the community at large. The few amendments which had been brought forward by the Central Chamber of Agriculture did not very much concern veterinarians.

One amendment which they proposed was that the Treasury should pay the whole amount of compensation which was payable under the measure, whereas at present the Bill said that the Exchequer should pay half and the other half should come from the rates. They had to remember that the County Borough authorities who would have to administer the Act would have to "pay the piper," and that therefore they should, to a certain extent, "call the tune." If they paid half the fees he thought that would be a fairly equitable arrangement.

The first thing that affected the profession was with regard to the giving of licenses to dairymen. The Bill said that the Sanitary Authority might by order remove any dairy from the register, or refuse to register any premises as a dairy, "if such premises became or were by reason of structural defect or insufficiency or other reason unsuitable to the purposes of a dairy business." The Medical Officer of Health was the acting man for the Sanitary Authorities, and the clause gave him very large powers. He (Mr. Male) had the greatest respect for the medical profession, but they had not had much experience in inspecting dairies or cowsheds. Some of them no doubt had very strong views as to the amount of cubic air space required, and other arrangements; and so doubtless many cowsheds would be condemned. He thought that duty was one in which the veterinary surgeon should be called in to assist the Medical Officer of Health. (Hear, hear.) A further clause said that the Medical Officer of Health might inspect the cattle "if accompanied by a veterinary surgeon." In his (the speaker's) opinion he should also be so accompanied when he inspected dairies and dairy premises. (Hear, hear.) Certainly the dairyman could appeal against removal from the register, or if he was refused registration on that account.

Another clause referred to the inspection of cattle at any hour by the Medical Officer "if accompanied by a veterinary surgeon."

The next clause explained the procedure under the Act. If milk from any dairy situated without the district of any sanitary authority was being sold in the district, and the Medical Officer of Health for that district had evidence of disease in the area from which it came, he was to give notice to the authority controlling that district, and such authority should forthwith cause the dairy, the persons employed, and the cattle therein, to be inspected by the Medical Officer of Health, who again "shall be accompanied by a veterinary surgeon." That clause allowed the owner of the cattle to be represented at such inspection by a veterinary surgeon, and sufficient time would be allowed before the inspection was made for him to secure such representation. The procedure probably would be this. An inspector, say at London, would take samples of milk from a churn, and if tubercle bacilli were found the authorities from whose district the milk came would be notified, and the local Medical Officer of Health and a veterinary surgeon would proceed to the premises and the udders of the cows would be examined; and he took it that if there were suspicious enlargements, samples would be taken from the particular cow or cows and examined. He did not know whether the law would take it as sufficient if acid-fast bacilli were found, as proof of tuberculosis, or whether inoculation experiments would have to be made. Inoculation experiments would take a month, which would delay matters; or possibly the authorities would say that a cow should be tested with tuberculin if she was suspected, and if the cow reacted that might be taken as sufficient evidence that she was giving tubercular milk,

and she might be killed. As they knew, it was difficult to find acid-fast bacilli in milk, and if they were found it was difficult to swear whether they were tubercle bacilli and had come from a particular cow. Therefore he hoped the tuberculin test would be applied to solve the question.

Another clause said that any report to the authority from the Medical Officer of Health should be accompanied by a report furnished to him by the veterinary inspector or veterinary surgeon. The Medical Officer of Health, if he considered the case one of urgency, might stop the supply of milk. There was no doubt the farmer would look upon the veterinary surgeon as a sort of referee in that matter, and he (Mr. Male) thought it very fortunate for the farmer that the Medical Officer of Health should be accompanied by somebody who knew the requirements and the habits of cows.

Another clause provided that if a person *knowingly* sold or offered or exposed for sale for human consumption or for use in the manufacture of products for human consumption the milk of any cow which had within six months, to his knowledge, given tuberculous milk, or was still suffering from tuberculous udder, or which was emaciated from tuberculosis, should be in each case subject to a fine not exceeding £10. The word "*knowingly*" saved the skin of the farmer, because it would be very difficult indeed for a farmer to know unless the milk had been tested for tubercle bacilli. As they knew, tuberculosis of the udder or of one of its quarters, was a very difficult lesion to distinguish from chronic mastitis. They got a cold, hard, nodular, slowly-forming swelling in one quarter of the udder, and in some cases they would expect to find the lymphatic glands very enlarged. That would help in the diagnosis. Of course in other cases there might be a cough, and they might be able to examine the sputum for tubercle bacilli; but tuberculous udder in itself was a difficult thing to diagnose. (Hear, hear). "Emaciation from tuberculosis," again, was not as easy as it at first appeared to be. Cows got emaciated from Johnes' disease, from parasitic gastritis, and from other diseases, such as pneumonia, from which they might recover.

Some bodies had asked for the amendment of Clause 14 of the Bill, where it read—"The local Government Board may, by order, require the Council or Authority to appoint one or more veterinary inspectors," etc., asking that the word "may" should be altered into "must." He did not think that would affect the profession very much, because the Medical Officer of Health was not able to examine the cows unless he was accompanied by a veterinary surgeon—so that whether one was appointed or not he would have to be called in.

In conclusion Mr. Male apologised for the "scrappy" nature of his remarks, the time being so short, and hoped there would be a good discussion. (App).

Mr. COLEMAN said he had been in active communication with two or three local Members of Parliament on the question of Mr. Burns' Bill. They ought to be very much obliged to Mr. Male for the condensed, yet thorough manner, in which he had gone through the measure as it affected the profession. (Hear, hear). In his (the speaker's) opinion, the Bill was absolutely useless as it stood. It was a Medical Officer's Bill, and no good to veterinarians. Why should not the medical officer "accompany" the veterinary surgeon in inspections? What knowledge had the medical officer of cattle to qualify him in inspection? Would it not be better to have periodical inspection by a veterinary officer to detect and arrest disease? (Hear, hear). He held that inspections should be of uniform character the whole country over, and not left to the option of any authority. The Bill as it stood was worse than valueless. It led the public to believe that provision was being made to protect their health, whereas in fact signs of disease had to be shown before any steps could be taken. Medical

and veterinary officers should work in conjunction, and the medical officer should have nothing to do with cows and cowsheds except under particular circumstances. As to compensation, he thought the proposal that local rates should bear half was very unjust. The different counties in England and Wales were differently worked from the agricultural point. One county was practically all arable, and another practically all dairy. (Hear, hear). Then it was recommended that the Board of Agriculture should appoint inspectors to travel great distances into other counties, instead of county inspectors being appointed as Board of Agriculture inspectors as well; and to that he strongly objected. (Hear, hear).

Mr. HUNTING said he had read the Bill pretty carefully, and thought it an extremely good Bill, and one they should encourage. In considering its value they must remember that it would be issued at the same time as the Tuberculosis Order, which would very strongly supplement it, and would give the veterinary surgeon much fuller powers. Another thing to remember was that under Clause 15 that Bill might be considerably strengthened by the powers given to the Local Government Board to issue separate orders, just as the different orders of the Board of Agriculture had strengthened the Diseases of Animals Act. In Birmingham and Manchester there were veterinary surgeons appointed under the Local Acts to keep up a regular and systematic inspection of dairies. Under Clause 26 of the Bill they would find powers for the repeal of those local Acts. Clearly it was impossible in a large provincial city for a medical officer to visit all the cows and cowsheds unless he had a veterinary surgeon as deputy; and it was curious that the power given to the Medical Officer of Health to delegate his powers should have been deleted, because in the first point of Mr. Burns' Bill—some three years ago—the medical officer was given power to delegate his duties under it to some other person. He thought the veterinary profession should not ask for powers which were really properly those of Medical Officers of Health. They had nothing to do with milk as a food; and, with the aid of the Tuberculosis Order, both parties would have their proper duties laid out, and could work together amicably if they liked to do so. (Hear, hear).

#### ADDRESS BY THE PRESIDENT,

D. WYLLIE, M.R.C.V.S., Staines.

Gentlemen,—When at our last meeting you did me the honour to elect me your President in succession to the then Mr. Stewart Stockman, now Sir Stewart, I accepted with a considerable amount of temerity. Not only was I following one of the most prominent members of our profession to-day, but was taking up duties, such as I had little experience of. Among other duties I found that it was expected of a president to deliver an address. In this case I am afraid the remarks I have to make can scarcely deserve that title.

Having referred to my predecessor, I will continue by saying that in the name our Association we offer our most hearty congratulations on his being knighted, and we are pleased to see him here to-day.

Of recent years, perhaps, honours of this kind have been conferred somewhat more lavishly than of yore, and politicians, it seems so me, have always had the lion's share. Certainly the veterinary profession has never been at any time overdone with such honours, and I will venture to say that never was such an honour conferred on any individual in any profession who by his individual efforts and achievements, was more deserving of that honour.

We know what good work Sir Stewart Stockman has done for the profession as a whole, and more particularly in that branch of science in which he has been

mostly engaged, and to which he is an ornament and the acknowledged authority—preventive veterinary science.

I am sure we as a society feel all the reflected satisfaction in the fact that Sir Stewart Stockman has been for so long a time, and is now a prominent member of the Royal Counties Veterinary Medical Association. He might well be described as practising veterinary science imperially, his work and research having been carried on with what success we all know in several of the distant and most important colonies of this great Empire. We are all aware of the great changes taking place in every kind of trade or profession, and in no branch of the world's work had the change been more radical than in our own. All of us here were in practice before motor traction became an established fact, and I take it not one of us can help but look with regret back on the old days when for most men who had a liking for outdoor life and incidentally for sport, veterinary work possessed a sort of glamour. That glamour has, I think, gone. We do not go about our work in the fashion we used to do, and in this we, of course, are not alone.

Every kind of work has to be done to-day at high pressure, and the care of that animal, the horse, to which most of us gave our greatest attention, has in most cases lost the important place it held formerly.

In many establishments, where formerly a goodly stud was kept and the owners were pleased to be called "horse-proud," you now notice the entire absence of the noble animal. This does not apply to town practice only, as in many residential districts where the most pleasant and most lucrative practices are situate, the position with regard to the horse is the same.

Fortunately for us if the world's progress has rendered our work in one direction unnecessary, that same progress has opened up new and ever enlarging channels for the veterinary's future activities. He will in the future be more and more used and recognised as necessary in the prevention of disease, and in the preservation of the public health.

Already there are appointments filled by veterinary surgeons all over the land. Such positions 20 years ago were either not in existence or were scarcely worth having from a pecuniary point of view, and did not then impress the powers that be with any serious appreciation of their importance. A few years in this strenuous age makes a great difference in public opinion as in everything else, and now we as a profession are looked upon as the right men in the right place to stamp out such epidemics as we have recently experienced in the outbreak of the foot-and-mouth disease. Where formerly, and perhaps not undeservedly, we were looked upon somewhat sceptically. Legislation affecting us as practitioners is in evidence, and the milk and dairies bill, while it may not be all we expected, does recognise our position, and also the fact that tuberculosis has been demonstrated and proved to be directly communicative to the human subject through the medium of milk, and when we remember that the country has to thank veterinarians such as Sir John M'Fadyean, Bang, and others for this discovery, it seems an anomaly that the veterinarian in matters relating to public health should act in such a secondary position in this particular work—the proper supervision of the milk supply under the Medical Officer of Health. The bill if passed as it stands at present is, I think, in some cases distinctly unfair to the veterinary surgeon. "Rome was not built in a day," however, and we can congratulate ourselves that we have to see after our interests at the Board of Agriculture, such men as our friends Sir John M'Fadyean and Sir Stewart Stockman, and can leave matters of this kind in their hands.

Passing to the subject of veterinary education, here also we see great changes and now attention and energy

in the schools is devoted to the production of the scientist and in making fit the coming practitioner to fill with credit to himself and to his profession, public offices connected with veterinary research which must come into existence. The microscope which in my student days was regarded by most of us as very unnecessary, is now even in ordinary country practice in every day use.

At the same time with all our efforts to keep ourselves up to date and capable of fulfilling our duties well and doing our work conscientiously, I do not think it can be said we are a well paid profession, personally I think we are the hardest worked profession and the worst paid. That may be because we are numerically a small profession and not always acting homogeneously and therefore weak. I am no advocate of trade unions, but I do think we might do ourselves as a body much good by taking a leaf out of their book as for instance in matters of fees paid by local bodies and Insurance Companies, about which recently, and I think rightly, there has been much discussion and it is painful to notice that almost invariably something has been said in those discussions about the bogey of the unscrupulous neighbouring practitioner.

Now, gentlemen, our professional papers are read by others than members of the profession, and I do think that it does not do credit to our professional *esprit de corps* to have this continually reiterated; and it can do us no good in the eyes of laymen who are interested in veterinary work. I do not refer to any particular instance of this, but I think we can discuss a matter of this kind, such as fees, etc., without making mention of this bogey.

The one remedy for overcoming the distrust of the practitioner we do not know well is to endeavour to get our professional brethren more and more to join such a society as that which I have now the honour to address. To remember that professionally we are each fighting our own battle and to learn by personal contact under other conditions than that of our daily work, that after all there is some good in the man of whom we had formed a harsh opinion, because we had no opportunity of meeting him out of armour.

And before closing I would like to express my opinion as to the good fellowship which is begot by these societies and their meetings, not only for discussion of business and professional matters, but by the opportunity given of meeting others with same worries, the same troubles, the same ideals and ambitions as ourselves, and to learn by fellowship that the alleged unscrupulous one may be quite a good chap, who may now have chosen his parents quite as wisely as some, or may have a larger family than he finds it easy to maintain, and who cannot afford to let slip even admittedly inadequate fees.

It is a pleasure to see such a goodly company here, and among them I see many valued friends and well known faces, who, but for this Association, I perhaps should never have known, and I can assure you it gives me great pleasure to be here in this position to-day, and during this year of office which I have entered upon, no efforts of mine will be lacking to do what I can for the good of the Association, and to see that its effects towards the advancement of the profession and the spread of a feeling of mutual fellowship among its members is fostered.

And if for no other reason than an occasional pleasant meeting, and the cultivation of a greater unanimity among ourselves, I sincerely trust and hope that the Royal Counties Veterinary Medical Association may continue to prosper.

At the close of his address the President was thanked by acclaim, on the call of Mr. Slocock.

## THE ANNUAL DINNER.

The annual dinner which is always such a pleasant feature at the Reading Meeting of the Association followed, at the Great Western Hotel, and the catering, as usual, was perfect, and the evening a bright and happy one. The President filled the chair, supported by the members enumerated above, and the party sitting down totalled about 30, the members being joined by several friends. The visitors included Dr. Gifford, of Egham, Mr. Harry Buckland, of Windsor; Messrs. Job Lonsley and Thos. Chettle (Chairman and Hon. Sec. of the Berks, Bucks and Oxon Dairy Farmers' Association), John Eighteen (Chairman of the Reading Corporation Farm Committee), Guy Sutton, F.R.C.V.S., London, Wm. Petty, M.R.C.V.S., Edward Nicholson, M.R.C.V.S., H. P. Tate, and Harold Stainton.

The toast of "The King" was loyally drunk on the call of the President.

Mr. VERNEY proposed "The Imperial Forces," observing that he seemed to have been selected to do so because he was one of the few members of the Association who was not in one way or another connected with the Services—which was rather a distinction. (Laughter). Englishmen had very great traditions to follow in what had been done by the Navy, the Army, and the Reserve Forces. They were much obliged to the First Lord of the Admiralty for the improvements he seemed to be effecting in the Navy; which to his (the speaker's) mind was really more efficient than it had been for some years. We had, it was true, a small Army, but it was pretty efficient, except as to the Remount Department; and there the Minister for War asserted that he had a full complement of horses on which to mount the whole British Army (Laughter). He was sorry to disagree with the Rt. Hon. gentleman. Farmers and others—fools like himself—had been breeding light horses, but for the last five or six years they had not been bred. The farmers themselves had been riding bicycles instead of horses; and the outcome was that the War Secretary made the biggest mistake in his life when he said he could put an Army Corps in the field. (Hear, hear). England was shorter of horses than for the last 15 years, and the shortage was continuing. He coupled with the toast the name of Capt. O'Rorke, and also welcomed to their Association Capt. Rees-Mogg. (Applause).

Capt. O'RORKE, in the course of his reply, said he had not had much experience of the Navy, but he thought they were more efficient than some of the newspapers made out; and he thought the declared policy of the Admiralty to keep a 60 per cent. superiority a right one. He believed that the Army was quite good. (Hear, hear). From the re-mount question he happened to be in a position to know that things were better than the papers said. His small experience was that foreign countries often bought horses in Ireland which he would not have on any account; and the majority of the horses bought for the continent were certainly no better than his department bought. When they mobilised it was quite a different thing, and he could not argue with Mr. Verney on that point. At any rate he could say that the Army was becoming more efficient every day, although the numbers might be small; and (especially in his own branch of the Service) he could see a change for the better. Officers were now called upon to do much more work than they were a few years ago. No doubt the Territorial Force, which was being cried down every day in the papers, should be given more consideration. (Hear, hear). They worked under great difficulties, and it would have been better if the people who cried them down would join and try to help them on, and make the best of a good movement. In conclusion he said that Mr. Verney's son was a great friend of his,

and was so when they were serving in South Africa. (Applause).

Dr. GIFFORD submitted "The Veterinary Profession" in a humorous speech. He had, he said, many friends in the veterinary profession; and sometimes he wished that he had himself become a "Vet." He was speaking of years ago, when there were no infernal motors and no "panels." (Laughter). He had not himself yet taken to a motor, and he should not do so as long as he had a decent horse.

Mr. SLOCOCK replied for the profession, which, he said, was one to which he deemed it an honour to belong. The profession was comparatively young, but it had made its way, and was coming well to the fore, and it would take its place among the other learned professions. The strides which it had made it had made by its own efforts. They had not received the State aid accorded to their profession in other countries. The progress of which he spoke could be attributed to the great value which the veterinary profession had attracted to itself in various ages. Those of them who qualified in his (the speaker's) time would remember that the profession was on a very different footing than that on which they now stood. The profession was now taking its share in all the modern advances in medicine and surgery. (Hear, hear). Amongst their members they could fairly claim some of the great scientists of the day. The profession, as a means of livelihood was as good to-day as it ever was; and he was as sanguine in that regard as he was when he joined it over 30 years ago. They were hoping that veterinary surgeons would soon be appointed on the establishment of every Local Authority throughout the kingdom. (Hear, hear). They should be on a par with the medical profession, and he was sure that medical officers would welcome them in aid. (Hear, hear).

It was true that horses were diminishing in number; but there were many other lines in which the practice was looking up. The income derived by veterinary surgeons, for instance, amongst domestic pets during the last 20 years must have been enormous. The Council of the College was composed of workers, and he assured them that it was doing its utmost with its limited funds. They hoped that before very long the "little Bill" would be passed which would enable them, one and all, to put the profession and the Council in a more prosperous condition than they had ever been in the past. (Applause).

Mr. BUCKLAND, in facetious vein, proposed the toast of "Success to the Royal Counties Veterinary Medical Association, the President, and Officers," and as a member of several associations spoke of the value of such gatherings in bringing professional men together to make friendships and ventilate their opinions. When the new Dairy Bill got through, he said, he was sure there would be many appointments going that at the present time were in the wrong hands. He had for some time been a member of the Tuberculosis Committee in connection with the Royal Agricultural Society; and it was agreed that all people having to do with dairies and with meat should be qualified people, and not people out of "drapers' shops." (Hear, hear). He was delighted to find that the veterinary profession was well supported in the new Bill. It would not be so bad as some people seemed to think, for they would receive a good deal of money from the Government and from local authorities. Next June they had the Royal Counties Agricultural Show coming to Windsor, and he hoped that those to whom he was speaking would induce some of their clients to send some good horses there. Their good friend the President (Mr. Wyllie) was a near neighbour of his, and he was a good fellow, a good sportsman, and a good veterinary surgeon. (Applause). He congratulated the Association on having



Mr. Wyllie as their president, and his friend on being the President of such an important Society. Their good Secretary, who was "a devil to work," had the interests of the Association at heart, and he would see that it continued to go well. If they ever gave him the opportunity he (Mr. Buckland) would be very happy to meet them again. (Applause).

The PRESIDENT briefly responded, as did Mr. Male, the latter gentleman expressing the great regret which was felt that evening at the absence of Mr. Butters, one of the oldest members of the Association, and one who had always given his heartiest support to the interests of the Association and of the profession as a whole. (Hear, hear). He took it as a very great compliment that so many members of the profession and so many distinguished guests were at the table that evening.

"Success to the Berks, Bucks, and Oxon Dairy Farmers' Association" was given by Mr. W. HUNTING, who began by saying that if there were no agriculture there would be no veterinary surgeons. The more scientifically cultivated the animal became the more the veterinary surgeon would be interested and required. He took it that the Dairy Farmer's Association would devote itself to the interests of the cow, and of the production of milk; and both of those things were very intimately connected with the veterinary profession. The Diseases of Animals Bill had a great deal to do with cows and with agriculture many years ago; and the profession might claim that the stockowner owed much to them, especially in the stamping-out of pleuro-pneumonia and of smallpox in sheep. They had still one disease—tuberculosis—to contend with, and that might be tackled in two or three different ways; it might be by co-

operation, but he did not agree with penal methods. He believed that it was arranged that on the Bill becoming an Act of Parliament, Tuberculosis Orders would be issued by the Board of Agriculture, and the two together would be complementary the one to the other, and do a great deal of good, if only by getting in the thin end of the wedge. To deal with tuberculosis by harsh measures at the present moment would lead to harsh measures all round. The only people who would object to compulsory notification were the pedigree stock-owners—who were his (Mr. Hunting's) pet aversion. (Laughter). He wished every success to the Association, prosperity to which he proposed. (Applause).

Mr. JOB LONSLEY and Mr. T. CHETTL (Chairman and Hon. Sec. of the Association respectively) made suitable response to the toast.

The toast list concluded with that of "The Visitors," proposed by the President, and responded to by Messrs. Sutton and Eighteen; and "The President," submitted by Mr. Sutton.

During the evening some capital songs were given by Messrs. W. Petty, Hunt, and Percy Simpson. Mr. Harold Stainton played violin solos with great acceptance, and some "anecdotes" were quaintly told by Dr. Gifford, Mr. Coleman, and Mr. Hunting.

Replying to a question in the House of Commons on Monday, Feb. 3, Mr. John Burns said the total loan debt of local authorities in England and Wales in 1910-11 was £540,000,000, equal to £15 1s. 10d. per head of the population, and £2 9s. per £ of annual rateable value.

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.		Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
		Outbreaks		Animals										
		Con-firm'd	Re-ported	Con-firm'd	Re-ported	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Out-breaks.	Slaugh-tered.
Gr. BRITAIN. Week ended Feb. 8		18		18				4	4	81	166	11	38	358
Corresponding week in	1912	80		35				4	4	116	246	14	67	1123
	1911	28		23				6	11			34	41	571
	1910		27		29			11	38			23	20	147
Total for 6 weeks, 1912		73		84				20	79	499	1160	68	213	2617
Corresponding period in	1912	152		174				16	35	890	2283	91	368	4386
	1911	132		145				29	80			185	213	2346
	1910		179		212			43	136			183	122	987

† Counties affected, animals attacked: Lancaster 1, London 2, Worcester 1.

Board of Agriculture and Fisheries, Feb. 11, 1913.

<b>IRELAND.</b>												
Week ended Feb. 8	...	...	...	...	...	...	...	...	Outbreaks 8	25	4	28
Corresponding Week in	1912	...	...	...	...	...	...	...	2	14	2	10
	1911	...	1	1	...	...	...	...	4	10	2	56
	1910	...	...	...	...	...	...	...	2	18	...	...
Total for 6 weeks, 1912	...	...	...	...	...	...	...	...	57	114	28	152
Corresponding period in	1912	...	1	1	...	...	...	...	13	124	15	164
	1911	...	3	3	...	...	...	...	15	126	21	341
	1910	...	2	2	...	...	...	...	15	135	5	156

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Feb. 10, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

### Vetting of Stallions.

At the Annual Meeting of the Clydesdale Horse Society, Mr. John M. Martin said that he desired, on behalf of the Council, to bring before the meeting the question of the compulsory vetting of horses. Subsequent to the conference in London the society received a letter from the Board of Agriculture and Fisheries stating that it was not their intention "this session" to introduce any measure requiring the compulsory veterinary examination of all horses travelling the countryside. That was a very drastic measure. It was not merely that anyone could send his horse to be vetted and certified as sound, but that no horse should be allowed to travel which was not officially vetted and passed as sound. While some of them had been in favour of encouraging a Government list of officially vetted stallions, and while the Highland Society had gone so far as to stipulate that they would give grants to no horses other than those on the list, the contemplated action of the Board of Agriculture was a very different matter. It was incumbent upon them to give forth in no uncertain voice their views on the matter. They thought that the breeder was entitled to make any use he liked of vetting facilities, but that it was quite another matter to prohibit a horse which had not been vetted from serving as heretofore. The question of soundness itself was one on which they did not agree with the veterinary advisers to the Board of Agriculture. The proposals of the Board of Agriculture went further than soundness, and suggested that veterinary surgeons should pronounce whether a horse was suitable or not to be a stallion. The society held that except on the matter of technical soundness the mass of the farmers of the country were fully as good judges as any veterinary surgeon as to what was a good horse. (Applause.) And under no circumstances would they agree to the veterinary surgeons having the power to say what sort of horse they were to use.

Mr. Martin, continuing, said that they proposed that the bill, if ever introduced, should not apply to any horse which was foaled at the time the Act passed. A committee, consisting of Mr. Findley, Principal M'Call, Mr. Robert Brydon, and himself, had drafted a resolution for the consideration of the meeting. The resolution was in the following terms:—"That the members of this society consider that legislation to exclude from public service all stallions not passed as sound by official veterinary examiners is at least quite premature, and should in any case only become operative as applicable to animals not foaled at the time of the passing of the Act; further, that should legislation in this direction be at any future time contemplated, this society claims to be heard through its Council, in conjunction with other horse-breeding societies, before any bill is submitted to Parliament."

Principal M'Call seconded.

Mr. John Marr, Uppermill, criticised the motion as being rather moderate. If, he said, action such as was proposed by the Board of Agriculture was taken, it would be injurious in an extreme degree to the breed. He thought it would be impossible for the Board to work their policy in any practical form. The animal passed as sound under the scheme might not do half as much good in breeding stock as an animal which was not passed as sound. (Hear, hear.) The Board of Agriculture should leave the selection of stallions to the common sense of the agricultural community. They resented being dictated to by officials who probably did not know what they were about. (Applause.)

Mr. Robert Brydon, Seaham Harbour, did not agree with Mr. Marr's view. They should, he thought, recommend that if ever this legislation was introduced it should apply only to animals which were not then foaled. That was surely warning enough in all conscience to

breeders. Mr. Marr had stated that if the proposed legislation was passed every animal had to be passed sound it would be unworkable, but he would like to point out that even with this law in force breeders could still use their own judgment as to whether they employed an animal certified sound or not. There was no proposal before the country to prevent a man from using any horse he cared to select. He did not think that anybody who had studied the subject could believe that it was to the interests of the country to breed from a horse which was hereditarily unsound.

Mr. John Findlay, Springhill, Baillieston, said that as one of the committee who had drafted the resolution he agreed that its terms were too moderate. (Applause.) Their society, from its knowledge and experience, was in a position to state emphatically that it disapproved of the proposed legislation. There was no use in mincing matters. If the breeders of the country were to be dictated to by officials in whom they had no confidence then the society should guide them in the matter. (Applause.) When they considered what Scotland in years past had done in producing a sound class of horses they did not require to go to London or to any other Board of Agriculture for guidance in their own business. (Applause.) It was all very well to speak of hereditary disease. He did not think it was intended to distinguish between what was and what was not hereditary. The examiners would simply say sound or unsound, and they all knew that a horse might be unsound to-day and sound to-morrow. (Hear, hear.) Was a horse to be unsound at five, seven, or nine years, or was there to be no age limit? Any number of the best horses in the history of the breed if they had been put before the veterinary surgeon would have been certified as technically unsound, although many years of breeding had proved that they produced good, useful, sound stock.

Mr. George A. Ferguson, Surradale, Elgin, moved as an amendment that the meeting "emphatically opposes any steps to be taken meantime tending to impose compulsory veterinary examination." He had been, he said, a strong advocate of veterinary inspection. He felt strongly that it was the duty of the Board of Agriculture to give information and also protection to a certain section of the public, but he thought that they discharged their duties fully already, and he was well enough pleased with the rate of progress they were making.

Mr. Marr, in seconding, remarked that they must oppose at the outset such intolerable interference with the breeders' position.

On a vote, the amendment was carried by 25 votes to 8.—*The Scottish Farmer*.

### Prosecution by the R.C.V.S.

At Lambeth Police Court, before Mr. Baggallay, Richard Evans, of High Street, Dulwich Village, was summoned by the Royal College of Veterinary Surgeons for unlawfully using and taking an addition and description, to wit, "canine doctor," contrary to the provisions of the Veterinary Surgeons Act, 1881.

Mr. G. R. Thatcher appeared in support of the summons, and Mr. Percy Robinson defended.

In opening the case, Mr. Thatcher said the complaint was that the defendant exhibited a brass plate on his door bearing the words, "R. Evans, Canine Doctor."

Mr. Robinson: To save my friend trouble and the Court time, I will admit at once that my client is not registered.

Mr. Thatcher said his submission was that the defendant had adopted a title, addition or description, stating that he was qualified to practice a branch of veterinary surgery. He described himself as a "canine doctor." In the popular meaning of the term doctor meant ex-



actly the same as surgeon, and, therefore, the defendant was practically saying that he was practising a branch of veterinary surgery.

Mr. Robinson said it was not suggested that the defendant was not carrying on his practice in a proper manner, or that he was not a competent and skilful person. The only question was whether he had taken a title which was an infringement of the statute. He submitted that the words, "Canine doctor," did not imply that the defendant had a diploma or degree which entitled him to be registered under the Veterinary Surgeons Act of 1881.

Mr. Baggallay: Supposing he put up the words "I can cure all the dogs."

Mr. Robinson: No one could touch him, sir. He could put up "I am the finest man in the world to cure your dogs," and no one could touch him.

The magistrate reserved his decision.—*Morning Advertiser*.

### REVIEW.

WESTMORELAND AGRICULTURE, 1800—1900. By FRANK W. GARNETT, M.R.C.V.S. Illustrated. Price 30/- net. (Titus Wilson, Publisher, Kendal, 1912).

From cover to cover this work shows that its publication must have meant a considerable financial outlay; its contents prove that a great deal of careful reading and research has gone towards its preparation; and its nature and price alike ensure it a very limited circulation. For a veterinary surgeon to publish such a volume at all is an unusual occurrence; and the position the present author holds within the profession renders his work doubly interesting.

In his preface, Mr. Garnett says that the book must not be regarded as a history of Westmoreland agriculture, though adds that it "may contain some of the materials for one."

"My object," he says, "has been to give sufficient material to enable each reader to form a conception of the state of agriculture during the past century, the phases through which it has passed and the development of stock—more especially that which is indigenous to the county—and to indicate the direction in which it is trending." He has certainly succeeded admirably in the aim; and in doing so has collected a great deal of historical material which, in addition to informing the reader, will be more than useful to any writer who may subsequently attempt a more detailed work on the subject.

The book begins with a fairly lengthy introduction, designed to convey an idea of the agricultural conditions existing in the county about 1800—the beginning of the period under survey. The remainder can be roughly divided into two portions for purposes of review, though they are constantly intermingled in the text. One consists of a mass of very varied statistical matter, largely in tabular form, and chiefly culled from Governmental, county, and district records. The other may be described as a series of original essays upon the County's development during the century in many departments of agriculture; and here again the author's wide reading is in evidence, for the quotations from other writers throughout the period are constant. Some branches of agriculture—such as land tenure in manors, geology, and agricultural sports—are purposely almost if not quite unnoticed. Of the very numerous ones which are treated, perhaps commons, markets, and fairs, sheep, and agricultural societies, provide the most interesting as they do the longest articles. Area, roads, tithes, cattle, horses, land holding, population, weather, values, rates, and county finances,

are only a few of the other subjects which receive more or less extended notice. The whole is most excellently written—lucid, condensed, and at the same time entertaining—and altogether the book gives a very good "conception" of the agricultural past and present of a county the development of which has received singularly little notice in England. In addition to the numerous and excellent illustrations—mostly of agricultural scenes and subjects, and special breeds of animals—there are maps, some curious old legal documents, an index, and a bibliography of half a dozen pages, the latter well showing the author's methods of work.

The book has literally been "made in Westmoreland." It was written by a Westmoreland man, aided by Westmoreland chronicles; most of the illustrations—there are more than sixty—are reproductions of the work of Westmoreland photographers, and the whole has been produced by a Westmoreland publisher. Of the latter's share of the work we will only say that in binding, paper, printing, and perhaps especially in the reproductions of photographs, the book will bear comparison with those of any London house. In every way the book is a credit to the county, and we only wish that its author could find the time to attempt a really exhaustive history of the same important subject.

### THE INTRODUCTION AND SPREAD OF THE CATTLE TICK (*BOOPHILUS ANNULATUS*, VAR. *MICROPLUS*), AND OF THE ASSOCIATED DISEASE TICK FEVER (*BABESIA*-SIS) IN AUSTRALIA.

Prof. J. A. Gilruth has communicated to the Royal Society of Victoria the result of his investigations upon this subject. The Australian tick fever is not present amongst the British herds which have formed the basis of the Australian herds, and, serious as the disease is in many localities, it is not found all over Australia. The disease first appears to have been noticed at Glencoe, 104 miles from Darwin by rail, about 1880-1881; and from thence it gradually spread southwards. It first began to be mentioned in official reports presented to Parliament from the Northern Territory in 1886; after which it rapidly assumed increasing importance.

Prof. Gilruth has instituted inquiries to ascertain, if possible, the agency by which ticks and tick fever were first introduced into Australia. All the evidence he has collected, although it is purely circumstantial, indicates that the ticks and the disease were first introduced by some cattle from the Dutch Indies which were imported by the British Australian Telegraph Company in 1872, and landed at Darwin. His chief reasons for believing this are—that all cattle in the Dutch Indies, though naturally immune to redwater, are more or less affected with ticks; that this was the only importation of native Eastern cattle which were able to cross with station cattle; that some of these imported cattle are known to have travelled inland as far as the Adelaide River; and that in all probability some of their progeny would gradually reach the main stock route somewhere about Glencoe, where the disease was actually first noticed about eight years after the importation. The evidence points to the subsequent gradual extension of ticks and disease along the stock routes from Glencoe. This is the main conclusion of Prof. Gilruth's paper, which embodies the results of much careful inquiry. It is possible that the problem which he has attempted to solve will never be settled with absolute certainty. But the evidence and arguments which he adduces in support of his theory are certainly very strong, and it appears probable that his view will be permanently accepted as the likeliest answer to the question.

W. R. C.

**Border Farmers and Newcastle Market Day.**

A largely attended meeting of farmers and dealers was held on Monday in Hawick Auction Mart, and protested against the proposal to change the market day at Newcastle-on-Tyne from Tuesday to Monday. Mr. F. P. Fenwick, Northhouse, president of the Teviotdale Farmers' Club, who presided, moved that they petition against the proposal. Mr. Charles Scott, Milsington, seconded, and the motion was unanimously agreed to. A petition was afterwards largely signed for presentation to the Lord Mayor of Newcastle on the subject.

**ARMY VETERINARY SERVICE.**

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Feb. 11.

SPECIAL RESERVE OF OFFICERS.  
ARMY VETERINARY CORPS.

D. R. Williamson to be Lieut. (on probation). Dated Feb. 12.

**Personal.**

Mr. J. T. CLINTON, M.R.C.V.S., Dundalk, has been appointed to the Commission of the Peace for the County of Louth.

Mr. ROBB, jun., M.R.C.V.S., Glasgow, has been appointed judge of horse-shoeing for the Paisley Show of the H. and A. S.

At the last general meeting of the Canterbury Farmers Club and East Kent Chamber of Agriculture Mr. R. L. Hetherington said he thought the Club ought to remember that the recent regulations with reference to the outbreak of foot-and-mouth disease, and the adoption of the zone treatment—whereby the radius was gradually reduced from fifteen to ten miles, and ten to five miles, and so on, was due to Mr. James Crowhurst. He thought the Club should thank him very much for the suggestion which he had made, and which they had found to work so well. (Applause). The vote was cordially endorsed.

There were three applications for the position of inspector of dairies, etc., in the Naas No. 1 Rural District from Messrs. W. T. M. Browne, v.s., Naas; Joseph Cosgrove, v.s., Kildare; and P. J. Shiel, v.s., Rathcoole.

Mr. Smyth proposed the election of Mr. Cosgrove. Mr. Corry seconded.

Mr. O'Neill proposed Mr. Shiel, and this was seconded by Mr. Tallon.

Mr. E. Doyle proposed, and Mr. Rourke seconded the election of Mr. Browne.

On a division there voted for Mr. Browne, 17; for Mr. Shiel, 17; for Mr. Cosgrove, 11. Mr. Cosgrove accordingly dropped out, and on a final division the voting was, for Mr. Browne, 24; for Mr. Shiel, 20. Mr. Browne was accordingly declared elected.—*The Kildare Observer*.

At a meeting of the Cawdor Cup Committee Mr. James Kilpatrick moved that the inspectors who officiated on Tuesday at the Stallion Show should be appointed, namely, Principal M'Call, and Messrs. Andrew Robb, senr., Glasgow, and David Imrie, Bishopbriggs. Mr. Wm. Kerr seconded.

Mr. James Weir proposed that the inspectors be as follows: Principal M'Call, and Messrs. Wm. F. Houston, M.R.C.V.S., Paisley; and John Brown, F.R.C.V.S., Inver-gordon. Mr. John Findlay seconded,

On a vote being taken, Mr. Weir's motion was carried by a large majority, and the three gentlemen named were appointed.

We learn that the late Matt. Hedley, F.R.C.V.S., died from cancer of the liver: almost inevitably he suffered greatly, especially at the latter part of his illness.

The death of Mr. R. P. Paine, Shamrock Cottage, Burwash, Sussex, is announced, on Saturday, Feb. 8.

**CORRESPONDENCE.****COURTESY VERSUS STUDY.**

Sir,

A keen and fairly prosperous young country practitioner has recently asked us for candid advice *re* "taking some post graduate course." Advising the young is always a solemn undertaking, but we attempted to point out the difference between a course "taken" and a "study" of a particular subject. We gave our opinion that a "short course" is best likened to an American omnibus in which the fare is the same for any distance. The ticket, duly punched, is retained and bears a certain face value for some time after issue. On the 'bus route charming but sometimes elusive views are obtained of the India Office, 4 Whitehall Place, the War Office, and Colonial and South African Departments. On a very bright day some travellers claim to have seen county veterinary officers in motor cars on the horizon. This is doubtful...probably they were lay inspectors. The journey is beguiled with highly concentrated, condensed scientific dissertations on "all the diseases of the world in a moment of time." These have been known to produce violent mental indigestion ending in purgation by means of the sale of typewritten "notes" when a foothold has been obtained in one or other of the aforementioned desirable residences.

A long course we opined to be a more leisurely journey in a flatter country. The views are less fine and their addresses less authoritative. The "ticket" is retained and may be displayed on note paper to town councillors and others having municipal influence. Covering a limited area it is a dear ride.

Post-graduate "study" we strongly advised as virtuous and having its own reward. Our enthusiastic young friend has a good knowledge of German. We mentioned a disease of cattle occurring in his district, rare in other parts, briefly dismissed in "courses" and about which nothing is really known. We advised some correspondence with continental authors mentioned in the translations of continental text books, keeping notes of all cases, the collection of literature on allied subjects, and the devotion of the spare time of three or four years to the matter. Our recently fledged member here asked whether after all this, he would have any chance of getting one of the £150 per annum grants to qualified men. Would he be able to allow himself the luxury of a locum for twelve months while he was receiving sympathetic and disinterested assistance of the head of a good laboratory to whom his years of clinical experience and observation would be of some value. Or would these plums, as he seemed to fear, be reserved for brilliant students, course takers, medal grabbers, and assistants who should be good advertisements for this or that academic centre. We could not reply. Can your correspondents give an answer?

The first stone cast will be that our young friend has never been certified by the head of a College as being "capable of research." True, but he has on his own account published original papers receiving favourable criticism on the continent and in America, but above the heads or beneath the notice of English workers.

Unto them that are without, all these things are spoken of in parables.—We are, yours faithfully,

TWEEDLEDUM AND TWEEDLEDEE.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1285.

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## FOOT-AND-MOUTH DISEASE.

Parliament, by a majority of more than 20 to 1, has negatived a practical vote of censure upon the Board of Agriculture's manner of dealing with foot-and-mouth disease. It is well to err upon the side of caution, and the present twelve hours' embargo upon Irish cattle at English ports is not an excessive detention, and is probably advisable. But the debate was chiefly remarkable for the complete reply which Mr. Russell made to attacks—unsupported by specific evidence—levelled against the Irish Veterinary Department. There is a strong tendency to throw stones at the Irish Department because of what happened last year. Disease existed unreported on a single Irish farm, and the Department cannot fairly be blamed for that. Its transmission to England and the havoc it wrought there form a good example of the rapidity with which a contagious disease may spread in a civilised country, and justify caution in the transit of animals. But they neither justify nor excuse the distrust of Irish administration which has since been so freely expressed in England. Laxity has been imputed to the Irish Department, and even incompetence of its staff has been insinuated. But, "since the first outbreak at Swords nearly a million head of cattle have passed over the Channel, and not a single case of foot-and-mouth disease has been detected at any English port." That was Mr. Russell's answer to the detractors of his Department, and it was a convincing one.

Our fear of foot-and-mouth disease in England, unless it is tempered with reason, may end in genuine "injustice to Ireland." We should remember that we have imported the disease from the Continent much more often than from Ireland, and that Ireland herself is less exposed to the danger of importing Continental infection than England.

## VETERINARY EXAMINATION OF TRAVELLING STALLIONS.

At the recent meeting of the Clydesdale Horse Society strong opposition was expressed to the foreshadowed compulsory veterinary examination and registration of travelling stallions. It is one of those questions in which a good deal may be fairly said on both sides, and we may return to it later. Some of the breeders' criticisms were not without weight—they are justified in claiming, for instance, that, apart from technical questions, they are themselves competent judges of what constitutes a good horse. On the other hand, no one can doubt that compulsory examination and registration is the surest method of checking the use of hereditarily unsound sires. That argument is such a strong one

that it is bound to gain the day in time, and we have still some time before this projected legislation is introduced, with possibly also some delay before its full enforcement.

## ACETOZONE IN THE TREATMENT OF SCOUR IN CALVES.

By B. J. P. MAHONY, M.R.C.V.S., Maryborough.

*Subject.*—Several calves attacked with Scour; the calves were the property of a farmer in the district. On my arrival I found two already dead and eight affected, two being in a very bad condition. I had no hopes of their recovery as they were passing considerable quantities of blood and mucus.

*Treatment.*—I determined to give Acetozone a trial, and promptly telegraphed to Parke, Davis & Co., the manufacturers to forward some on to me. I gave the calves Acetozone in milk every six hours, with the result that not only did the six recover, but also the two that I had despaired of got quite well after a few days.

I think the results were marvellous, and would strongly recommend its use in the treatment of the disease.

Perhaps I might point out that Acetozone contains 50 per cent. of Benzoyl-Acetyl-Peroxide, together with 50 per cent. of an inert powder, employed as a diluent. Parke, Davis & Co. claim that Acetozone is probably the most powerful non-toxic germicide known, being relatively more potent than hydrogen peroxide, mercuric chloride or carbolic acid. The manufacturers inform me that it has proved of very great value in canine distemper, gastro-enteritis and joint-evil in foals, as well as in the treatment of parasitic scouring, contagious abortion, etc., and that it may also be dissolved in water and used as a lotion.

I might say that I did not find the preparation very soluble, but am informed that it is the inert diluent that remains undissolved, and that it is not really necessary to filter the solution. The strength of the solution should be about 20 grains to a quart of water or milk.

## "FLOATING KIDNEY" IN A DOG.

Hebrant and Antoine, remarking that accidental displacement of the kidney, common as it is in the human subject, has not yet to their knowledge been recorded in veterinary literature, relate the following case. The subject was a female hound (age not stated) used for hunting by scent. The history was that for some time previously the animal had failed to keep pace with the rest of the pack, and had shown enlargement of the abdomen. At first pregnancy was suspected, but the expiration of the re-

gular term of gestation showed this idea to be wrong. The bitch was then examined by a veterinary practitioner, who, on palpating the abdomen, distinctly felt an abnormal body situated behind the stomach. She continued for some time to be used in the hunt, but found it more and more difficult to keep pace with the pack, and at the same time began to put on flesh. Her appetite throughout was voracious. Finally she was sent to the Brussels School for examination by the authors.

They found her in very good condition—rather too fat for a hunting dog—and her general health appeared normal. Palpation of the abdomen revealed the existence of a reniform, elongated body, slightly sensitive to pressure, floating in the midst of the intestinal mass and easily displaceable either forwards or backwards. The surface of this body was smooth, and it seemed to be free from all adhesions to the viscera; it appeared, however, to be sustained from the lumbar region by a band, for it was impossible to draw it down to the linea alba.

Despite its great resemblance to a kidney, the authors hesitated to regard this body as one; it being the first time they had encountered such a case. They remark that they would have had no hesitation had the subject been a cat, as they are accustomed to recognise both kidneys by abdominal palpation in cats. In this case the presence of a tumour of the mesentery appeared possible, and an exploratory laparotomy was decided upon. This proved that the body in question was the left kidney, hanging in the midst of the intestines and supported by its ordinary means of attachment, which were elongated and had attained a length of from 3 1/5th to 4 inches.

The authors explain that the kidney may be displaced from its normal position either *suddenly*, in consequence of a traumatism or other violently acting cause, or *slowly*, by a relaxation of its various means of attachment. The first occurrence is rare in the human subject, but the present case appears to come into the category of sudden displacement. The employment of the dog, which had been very active in the hunt and had certainly made many jumps and violent efforts, seems to the authors to indicate an initial sudden and violent displacement of the kidney.

The symptoms are accounted for by the pain produced by the kidney drawing upon its attachments during rapid progression, and the tendency to obesity may be set down to diminution in the exercise taken. It is noteworthy that spasms or crises of pain were never observed, and the authors explain this by citing the habitual resistance of sporting dogs to painful sensations.

Two methods of treating displacement of the kidney are practised in human surgery, viz., nephrorrhaphy, or fixation of the kidney, and nephrectomy, or simple removal. Nephrectomy is a serious operation, often entailing death, and is only justifiable when the displaced kidney is diseased, degenerated, or affected with pyonephrosis, or when nephrorrhaphy has been attempted and has failed. None of these conditions were present in this case. On the other hand, nephrorrhaphy did not appear hopeful, in view of the violent exercise which the

dog would subsequently have had to undergo in hunting, and which would have endangered the stability of any artificial fixation. It was therefore decided that the animal should be destroyed.—(*Annales de Méd. Vét.*)

W. R. C.

#### THE CENTRAL VETERINARY SOCIETY.

A general meeting was held at 10 Red Lion Square W.C., on Thursday, Feb. 6th.

The Hon. Sec. having announced that a letter had been received from the President, Mr. J. W. McIntosh regretting his inability to be present, Mr. R. J. Foreman, Vice-President, was unanimously elected to the chair.

The following Fellows signed the attendance book:—Messrs. J. Willett, J. B. Buxton, A. Crabb, R. Bennett, D. Stewart, J. F. Macdonald, R. Bryden, R. J. Foreman, G. Gofton, Prof. E. B. Reynolds, G. H. Livesey, W. L. Harrison, N. Almond, Sidney Villar, Prof. G. H. Wooldridge, W. Hunting, F. W. Willett, Henry Gray, H. D. Jones, Wm. Perryman, W. Willis, Sydney H. Slocock, W. R. Clarke, Guy Sutton, T. S. Price, and Hugh A. MacCormack, Hon. Sec. Visitors: Messrs. E. J. Farbrother and Geo. A. Banham.

The minutes of the last meeting were, on the motion of Mr. Stewart, taken as read and confirmed.

The Hon. Sec. announced that telegrams had been received from Mr. W. S. Mulvey and Mr. J. C. Coleman regretting their inability to attend the meeting.

#### CORRESPONDENCE.

The Hon. Sec. read the following letters from Sir S. Stockman and Mr. T. C. Toope:

*International Veterinary Congress, 1914.*

Dear Sir,—As you are probably aware it was decided at the first general meeting of the Committee of Organization held on July 6th, 1911, that all Presidents and Secretaries of the various Veterinary Associations at that date should be *ex officio* members of the Committee. At a meeting held on January 10th, 1913, it was further decided to ask subsequent Presidents of these Associations to become *ex officio* members. Would you kindly submit this to the present President of your Society, and inform me at your earliest convenience if he will be good enough to accept the invitation, and forward his name.

To prevent any misunderstanding I desire to point out that the acceptance of the invitation by the existing President does not displace the previous President as a member of the Committee.—Believe me, yours truly,

S. STOCKMAN, Hon. Sec.

*National Veterinary Association.  
(Southern Branch).*

Dear MacCormack,—I have to-day sent you a supply of schedules and scales of fees adopted by above Society, also some circular letters for circulation amongst your members who are veterinary inspectors. What is really wanted is a practically simultaneous movement in various counties that need an improvement. Then the deputations cannot be met with the argument that has been used "that you are as well paid as are your neighbours in adjoining counties," a rather difficult position to deal with. If you need more kindly drop me a line.—With kind regards, sincerely yours,

THEO. C. TOOPE.

#### MORBID SPECIMENS.

Prof. WOOLDRIDGE produced two calculi or concretions from pigs, for which he was indebted to Mr. Storrar, of

Chester. They were taken from two different pigs. The larger one was in the stomach, and was only found in the slaughterhouse on the slaughter of a fat pig. Its presence was never even suspected. The smaller one was responsible for the death of the pig in question, and was found in the intestines, causing a complete stoppage. He presumed both calculi developed in the stomach. In each specimen there was a suggestion of constriction of the middle, and from that point towards each end bristles were directed; so that one might, without a very great stretch of imagination, liken the ends to a shaving brush. The larger calculus had had a little section cut out, in order to show the deeper parts, and they found bristles with bran and similar food substances.

A second exhibit consisted of the prostate, bladder, and kidney of a collie-retriever mongrel. The symptoms were simply those of retention of urine; and on manipulation of the abdomen considerable enlargement could be found. It was very tense to manipulation and dense, suggesting a tumour formation; and on performing laparotomy, he found an enlarged prostate, about the size of an orange and in front of it lying just above the bladder, a huge cyst about the size and shape of a large donkey's testicle. He punctured the cyst with a small trocar, and no fluid came. He applied an aspirator, and still nothing came out except a tiny blob of very tenacious material. He made an incision in order to evacuate it, and found it contained very viscid green material, containing flocculent bodies as well. No hope was held of recovery in this case, the patient being almost in a moribund condition. The dog died within 12 hours of operation. On post-mortem examination, the kidneys were found both affected with interstitial metritis. In the cortex was a number of small cavities or cysts, due, he presumed, mainly to the damming back of the urine and inability to pass it. There was not a great amount of urine in the bladder. If they looked at the specimen carefully they would see there was a large prostate in it which had been divided down the centre in order to expose the urethra, to see if there was any direct communication between it and the cyst. They could find no duct at all. The cyst he referred to had been opened its full extent on the under surface.

He also exhibited the radius of a fat bullock killed only that week, for which in the open market £27 was paid; so the fellows could gauge from that fact the condition of the beast for food purposes. On slaughtering, its liver was found to be badly affected with tuberculosis, also the glands corresponding with the liver; and the lungs and the glands of the thorax. On examining the forelimb he found the elbow-joint badly tubercular. There was only very slight indication of trouble in the humerus, as it fitted into the elbow joint. Prof. Wooldridge commented on the frequency with which extensive tubercular lesions in animals that appeared in absolutely prime condition was met with, and in reply to a question said that so far as he could gather there was no history of lameness at all.

Prof. REYNOLDS showed a specimen from a five months old Irish terrier, consisting of the whole of the large intestine, showing part of the small gut, the ileum vaginated through its entire length and protruding from the anus for about four inches.

Mr. HENRY GRAY asked why Prof. Wooldridge termed the two hairballs of the pig "calculi"? He also wished to state to Mr. Reynolds that in his (the speaker's) experience the condition found in the specimen was much commoner than prolapse of the rectum. He had only seen it in outbreaks of distemper. He had seen nearly every puppy in Great Dane kennels suffering from distemper with protrusion of the inverted small intestine outside the anus. As long as the young creatures were fed on liquid food such as milk they would live for days and even weeks, but when an attempt was

made to replace the organ in its proper situation death rapidly took place. In such cases he had never had success because intense inflammation set in the replaced bowel and death occurred within 24 hours; or the condition that gave rise to this complication always ended in death.

Mr. ALMOND remarked that the hair calculi which Prof. Wooldridge had kindly brought before them were not unique. He (the speaker) had seen several similar specimens; in fact, he had one himself that was given to him by Prof. Williams some time ago at Liverpool. In the case of the human subject, only a short time ago an operation was performed in which a complete cast of the stomach was formed by its contents, which consisted of hair, and it was removed successfully, and the affected person recovered.

The specimen of bone produced was interesting, because the lesion described was comparatively rare in the ox as compared with the pig.

Mr. BANHAM asked if Prof. Wooldridge had any idea of how the hair got into the pig.

Prof. WOOLDRIDGE presumed it was from its own body by rubbing on troughs, etc., but how the animal actually got it there he could not say.

Mr. BANHAM very much doubted this theory. He had never seen a pig eat anything off its own body, or anything of the kind; in fact he believed it was an impossibility. He thought the origin of the calculi was offal of other pigs. He had never found anything like it, and thought it could not be common.

Prof. WOOLDRIDGE replied that he did not suppose the cases were absolutely unique, but the fact remained that they were not common, as Mr. Banham had said. He (Prof. Wooldridge) thought his own explanation was a reasonable one. Undoubtedly the pig would require to eat a considerable amount, and the concretion would not form in five minutes. Replying further to Mr. Banham, the regularity of the hair was, in his opinion, due to the fact that it would be in constant movement.

Prof. REYNOLDS pointed out that each concretion was composed of hair of one colour, brownish black in one case, sandy in the other. He suggested that if they resulted from feeding on slaughterhouse offal they would be composed of hair of different colours.

Prof. WOOLDRIDGE replied that in the slaughterhouses in Cheshire they are not limited to one breed. No chemical or histological examination would be made of the specimens. Another argument against the offal suggestion was the apparent structure. Obviously the pig had not been on meat offals, but on wheat offals.

The CHAIRMAN observed that in calves a great many such hair balls were found, due to the animals licking themselves.

#### ELECTION AND NOMINATION OF FELLOWS.

The following gentlemen were balloted for, and declared unanimously elected Fellows of the Society:—

Mr. J. B. RUTHERFORD, 56, Worship Street, E.C.

Mr. SYDNEY SLOCOCK, Jun., Hounslow.

Mr. F. J. TAYLOR, 165, Church Street, Kensington, W.

Mr. W. S. KING, M.R.C.V.S., 23, East India Dock Road, E., was nominated, and will come up for election at the next meeting.

#### MOTION BY MR. J. WILLETT.

The following motion was on the Agenda in the name of Mr. Willett:—

"The Central Veterinary Society views with much dissatisfaction that, according to the reports of their Delegates to the Sanitary Congresses, the resolutions arising from the debates of the Veterinary Section are not embodied in the reports of the Congress, owing to the said debates being held on the last day. They are of the opinion that no further Delegates should be sent unless better facilities are offered."

Mr. J. WILLETT apologised for not being present at the last meeting when the discussion was opened, and thanked Mr. Slocock for so ably opening the discussion in his absence. The Fellows would have seen from *The Record* that, since the motion had been on the Agenda, the whole position had been altered. A letter appeared from Mr. Dixon, of Leeds, Hon. Sec. for the Conference of Veterinary Inspectors, saying that the Sanitary Institute decided that the Veterinary Inspectors' Conference should start on Thursday. That was very satisfactory. On the previous day he had an interview with the Secretary at the Sanitary Institute, and he very courteously went into the matter, and said that they were trying to arrange for the Conference of Veterinary Inspectors to be held on the Wednesday. That, he considered, much more satisfactory and as the various discussions seemed to have had the desired effect, he asked their permission and that of his seconder to withdraw his motion, but would like to put on record our appreciation of the courtesy shown by the Sanitary Congress Committee in granting us an earlier day for discussion.

Prof. WOOLDRIDGE, the seconder, having concurred, permission was given by the meeting for the motion to be withdrawn.

"NOTES ON THE PROBLEMS OF EVERY-DAY DOG PRACTICE," by Mr. G. H. LIVESLEY. (Resumed Discussion)

Mr. GUY SUTTON, in continuing the discussion, thanked Mr. Livesley for introducing a few difficult points met with in dog and cat practice. The education of veterinary surgeons was rather wanting in that branch of their profession.

Regarding conditions grouped under the term "Ear Canker," he quite agreed that fully ninety per cent. were parasitic in origin, and that their best efforts should be devoted to the destruction of acari. He had had most success with silver nitrate and perchloride of mercury in solution, iodine, and nitrate and oxide of mercury ointment. He had found the latter quite useful if put in every fourth or seventh day, and allowed to soak into the ear. The strength of the ointment was that used for the eye. If it was just put in the ear it distributed itself.

He would like to hear if Mr. Livesley could suggest any efficient treatment for chronic suppurating ears when probably there was ulceration of the cartilage. The case would go on for years, and there would be great difficulty in doing anything with it except patching it up.

Mr. Livesley's treatment of fracture of the radius was undoubtedly correct, the veterinary profession being rather too much inclined to put their animals into splints. In human surgery splints were not much used and far better results were obtained than formerly. With animals confined in a cage it was wonderful what recoveries took place.

In spinal meningitis, the symptoms described by Mr. Livesley were quite diagnostic of a disease, but with all respect he was not prepared to accept Mr. Gray's term "ossifying pachy-meningitis" until the condition was demonstrated pathologically. He had obtained beneficial results from the use of Iodide of arsenic internally, and the iodine ointment sold as "Vetiod." Certainly dogs did recover; some of them had repeated attacks, but in other cases the trouble did not recur. That hardly seemed to coincide with ossifying membrane. He had lately seen two outbreaks of what appeared to be contagious meningitis in dogs. They started with a rigor, followed by high temperature; after three or four days the dogs reeled in their gait, and in a few days were quite all right. With regard to cases of interdigital abscess, if they were slit up and then treated with silver nitrate and iodine they cleared up. He knew they came again in many cases, but it did not seem necessary

to dissect the lining of the abscess cavity. He had found that the recurrence might be prevented or minimised by painting in between the toes by dressing every three or four weeks with Tincture of iodine. Mr. Sewell tells me he gets good results in recurrent cases by treating with a vaccine. Personally vaccine treatment has not been brilliant in my hands, though the vaccines were prepared by experts.

As to worms, it was often most annoying when people said the dog did not get rid of the worms when sent to us. He advocated that an hour immediately after dosing the dog, it should be taken out for a walk, and allowed to play with a ball to engage the attention. That seemed to act very well. If not an enema might be given.

Cat diseases were a mystery to him. It was most difficult to differentiate between them. He thought probably there were several distinct contagious fevers in the cat. There were certainly other diseases than cat distemper. One was characterised by dribbling, and by a swelling of the mucous membrane lining the mouth, and sometimes ulceration. It was not often fatal. One-eighth of a grain of carbolic acid in a powder was a useful treatment in such cases.

Pneumonia, he thought, was a most fatal disease in the cat. At "The Zoo" a pneumonia in felines was recognised which killed readily within the 48th hour. He would like to ask the author what success he obtained in treating cats with sarcoptic mange.

The CHAIRMAN said that in certain ear cases in the human subject, a good deal of hydrogen peroxide of the strength up to five volumes was used. It was practically painless, caused a lot of bubbling and cleared out the debris wonderfully. Then the old-fashioned lead and opium lotion wanted a lot of beating, especially in the painful cases. In his district spinal meningitis seemed to occur in epidemics. Occasionally he had it recur in about six to twelve months. He queried whether it was spinal or not, as the front parts might be affected without the hind parts. He should have thought if it were spinal it would affect both parts if it affected the fore parts.

In luxation of the patellæ, he thought the method of exercising to make the dog walk regularly very ingenious indeed. In a case of his own with chronic dislocation of both patellæ to the inside he had tried a fair amount of force without anæsthetic, and could not move them at all. Of course there was great malformation.

In practice, his experience of worms was rather opposite to Mr. Livesley's. He himself had not been able to get very good results. To judge from the advertisements of quack medicines, there was never a failure with their doses, but that was not his experience. Exercising with a ball after a dose was fairly satisfactory, but he certainly had a large number of worm medicines in his dispensary which he either dare not use, or they are useless. He had had a fair amount of cat influenza, and had used the drug Mr. Sutton had mentioned, the small doses of medicinal carbolic.

A MEMBER asked if the cat had a certain dose of carbolic acid every day.

The Chairman replied in the affirmative. Cats did better on it than on anything else he had tried, although where a veterinary surgeon had not an infirmary it was very difficult to treat those things. Although he allowed out the certain dose, he did not suppose the animals got anything like that by the owner's administration. The kittens were generally brought when they were giving that pathetic cry that meant death in an hour or two, so he rarely had a chance to see what treatment would do in their case.

Mr. HUGH A. MACCORMACK was surprised to hear that Mr. Livesley experienced such great difficulty in treating the cat for ear canker. There were two ear cankers; inflammation of the ear pure and simple, and



the other produced by an acarus. An oil dressing with any of the coal tar derivatives would cure the latter. The great trouble was the hatching out of the eggs; therefore if the animal's ear was dressed every third or fourth day, the successive broods of acari would be killed. For the other ear canker a dry dressing was more suitable, oxide of zinc, boracic acid, or calomel, with Fuller's earth used as a basis. One great difficulty was that the cats would lick their paws after cleaning their ears, many a cat being poisoned in that way. In dogs it was not so difficult. It was necessary to see, when dressing the ear, that the lotion or powder went well in. If the case was one of acari, the outside of the ear should also be dressed, and if it were a long-eared dog, the cheek of the dog should be dressed with the lotion; because the acari might get transplanted from the flap of the ear to the cheek.

He thought the iodine treatment Mr. Livesey mentioned very drastic, and he would be afraid to use it himself.

He remembered a case of fracture of the femur in a little fox terrier, in which he said the best thing to do was to have the dog destroyed. The owner agreed, but on making another visit to the farm some time after he (Mr. MacCormack) saw the dog still alive and had made a good recovery. Since then he had been very careful as to giving an opinion about destroying a dog with fractured legs. Mr. Livesey was quite right not to put a heavy splint on the legs, but he (Mr. MacCormack) did not like to leave the animal without something on it. The ordinary adhesive plaster was the best. The animal should be kept quiet in a small kennel, and if he tried to bite off the plaster he should be muzzled.

He thanked Mr. Livesey for his ingenious treatment in luxation of the patellæ, but that treatment could only be adopted at a surgeon's own place, he had had excellent results from applying adhesive plaster.

With regard to digital abscesses, he had lanced them, caustics applied and even used the cautery, but they had reappeared. Lately he had been trying iodine treatment, and thought he had obtained better results from injecting tincture of iodine with distilled water into the sac. It should be injected every fifth day, and should the trouble recur it would be benefitted if the owner was warned to come as soon as it started swelling.

He thought that the disappointment resulting from the treatment of worms was due to insufficient care. Twenty-four hours' starvation should not be imposed. Give a saline purge if the patient had a special liking for castor oil, the better thing to do was to add to it a little lime water, and in a way emulsify it. The animal ought to be fed lightly the day previous to the purge, the purge being given in the evening and next morning, the worm medicine. The animal should be taken out and kept occupied running about, and in half an hour give an enema of warm water, powdered areca nut being added. Get the animal to keep it in as long as it could, the worms would soon come to light. If they could prevent the dog from being sick, it was half the battle.

Mr. ALMOND agreed with Mr. Livesey in his estimate of the cause of ear canker, and his experience was the same. He found that the simple dusting into the ear of boracic acid in 19 cases out of 20 would remove the trouble. In those cases which were not due to acari but to inflammatory catarrh from other causes, the treatment had to be altered. The simple treatment had to be repeated night and morning, and for some time after the symptoms had disappeared. It should be continued till any ova present had hatched out.

With regard to fractures, it was well recognised at the present day that to treat a fracture successfully motion must be commenced comparatively early. In the human subject he believed the motion was commenced within a fortnight of the fracture. As to the case referred to by

Mr. Sutton, of a man's wrist as compared with the dog, he did not think the two things could be compared. If a man fractured his wrist, and the bones were put in a proper position, he would use every endeavour to maintain them in that position, but he did not think anyone would say that dogs did the same thing. His experience of treating fractures of the radius was not unsuccessful, and it was a simple one. He used two splints made of cardboard cut into the shape of the limb, and covered on the inside with cotton wool. If the splint was put on with a padding of cotton wool on the inside, the dog would not interfere with it if it were comfortable, and *vice versa*. Assuming such a difficulty the animal could be prevented from tearing the splint off by using a collar just deep enough to cover the end of his nose. If that were kept up close to his ears he could not then get at anything.

As to so-called spinal meningitis, he found such cases intermittent. The dog might exhibit all the symptoms in the morning, and at comparatively short intervals show periods of intermission. He thought that almost negated the suggestion of spinal meningitis. He was inclined to think it was of rheumatic origin.

A great many of the so-called inter-digital abscesses did not contain pus, but sero-sanguineous contents. He adopted the plan of immersion of the foot in a 5 per cent. solution of carbolic acid in water, the foot to be kept in the solution five minutes three times a day. In many cases that would disperse the condition that was forming, and in the event of the so-called abscess breaking, it would enable it to heal up and not recur, though he did not say the same dog would not have another abscess. Abnormal lactation had not been referred to by other speakers. He agreed with Mr. Livesey that it was a very great mistake to draw the milk from the udder.

One form of cat distemper was frequently associated with gangrene of the apex of the tongue and other parts of the mouth. That was a very distressing form of disease in cats. As to the difficulty of getting the cat to eat or drink, it was no doubt owing to the difficulty of prehension. He suggested supplying the milk in deep vessels.

Mr. HENRY GRAY said that after an experience of 25 years he did not find much trouble in the treatment of parasitic canker in cats and dogs which was due to an arachnid, and not to an insect, as stated by the essayist. His usual practice was to pour glycerine of iodine containing carbolic acid into the ear so that it reached the drum; he then compressed the root of the ear between the thumb and forefinger, so that the dressing loosened the dirt and reached the crevices, and afterwards wiped out the ear with cotton wool. This treatment was repeated every third or fourth day. The parasites could live some time in oil, sulphur ointment, and certain other materials. He disagreed from Mr. Almond's suggestion of boracic powder, which was inert so far as the parasites were concerned. The most difficult cases to treat were those due to chronic eczema or associated with the eczematous diathesis, which although responded to treatment for a time soon recurred. In cases of true otorrhæa associated with a yellowish cheesy discharge, treatment was generally difficult. But in ear complaints accompanied by a profuse discharge and arising during distemper or some other condition in the cat or dog, he found nothing superior to a simple mixture of fuller's earth and boracic acid. In chronic ulceration of the ear that did not respond to powders, glycerine of iodine or other mild treatment, he found nothing better than undilute Tincture of Iodine, and if that, after a time, failed he used undiluted liquor plumbi, which had a marvellous effect of hardening the mucous membrane. He had had recoveries even after six months' treatment of cases that had been indifferently or intermittently treated for one, two or more years. In

other instances, although he obtained improvement there was a recurrence, which he attributed to perforation of the drum, as when any liquid was poured into the ear there was on the part of the animal swallowing movements of the mouth.

As to meningitis and paralysis it was quite rare that all cases were not due to chronic ossifying pachymeningitis. In the latter there was a definite train of symptoms, and definite results. In 90 per cent. of cases he found it to occur in the yellow dachshund in which it would appear in several members of the same family or strain. It was liable to recur from time to time and to finally end in permanent paralysis. There was an hereditary predisposition to this disease. Some people would not buy a certain strain of dachshund because it was so liable to the chronic ossifying pachymeningitis. In some cases it would be manifested by intense agony in one limb especially after feeding. On post mortem examination of such cases he found the lesions at the sensory roots of the nerves supplying the limb. In cases of paralysis of one or both forelimbs the lesions were found involving the motor roots. Another form of meningitis, or meningo-myelitis accompanied by paralysis, arose in some dogs after exercise following confinement to the house or kennel for some time. He had seen such cases let loose at night-time for a run and found paralysed next morning. This form somewhat resembled the hæmoglobinuria in the horse. The head was extended by contraction of the superior muscles of the neck and dorsum, and the hind limbs were rigidly extended forward under the abdomen. Such cases were much less promising than those of chronic ossifying pachymeningitis.

With regard to luxation of the patella he would like to know how Mr. Livesey would treat it when it occurred in both limbs, or when it was due to faulty conformation or when it was congenital? In cases of chronic dislocation, when the patella was fixed to the side of the femoro-tibial joint he knew of no better method than dividing the straight femoral muscle, breaking down the adhesions and massaging the patellæ into position. He knew of no treatment for recurrent cases of luxation of the patellæ. Another form of luxation of the patellæ was that due to exaggerated abduction of the thighs. In this case the patellæ maintained their position by strapping the thighs together by means of special hobbles.

He was surprised to hear Mr. Almond make a statement he had done in regard to interdigital abscess. It was not a cyst. Mr. Almond should know that pus of the dog or cat was generally of a bloody nature; this was characteristic of the pus of carnivora. As to its treatment, he did not know how to prevent the disease, but painting with Tincture of iodine during the initial stage aborted its formation and prevented the development of an abscess. He had tried auto-inoculation, auto-vaccination, and other methods of immunisation, but had failed. In many dogs there were no recurrence or only after a long interval. In many other cases treated weekly, fortnightly, monthly, or so on, there would be a sudden disappearance for several months or a year or two. If vaccination were carried out in such cases, the usual conclusion would be that that effect was due to the cause—vaccination. He was sceptical, and thought that in the majority of cases conformation and the lymphatic temperament predisposed dogs to it.

As to "worms" causing disease his opinion was that it showed the ignorance of people when they attributed to them, as they generally did, the cause of disease. The only time when he thought worms might do damage was when they were present in excessive numbers during the weaning period. It was very easy to say "worms" as it was positive evidence to the owner, but it was not the true solution of the cause of many an illness, which they on post-mortem examination might

find inflammation of the intestine, a foreign body, intussusception, broncho-pneumonia, etc.

As to what was called "influenza" of the cat, it was nothing more than a mild catarrhal form of distemper. There was nothing rare in it. In this connection he remarked that the history of animal plagues before and since the dawn of the Christian Era showed that there had been numerous of these epizootics in the cat, which had been killed off by thousands during their occurrence. From a clinical study and post-mortem examination, he could not tell any difference between it and that of the dog; but they were not interchangeable. In many cases he found blackness of the ventricles of the larynx with a croupous exudate extending down the course of the trachea; the anterior and middle lobes of lungs were consolidated; and there were lesions of gastro-enteritis. He did not think they were any further forward in the differentiation of these complaints, any more than in the influenzas or catarrhs of the horse, than a hundred years ago, in spite of all the scientific and clinical research. Modern investigations all tended to show that they were due to one infection—an ultra-visible one, plus secondary or superadded infections, which were the most fatal, and gave rise to manifold manifestations. In some isolated cases of enteritis in the cat, attacking the jejunum and ileum, he found, on killing the animal sometime before natural death would have occurred, an abundant pure culture of a big streptococcus in the lumen of the gut. He did not know whether that was the cause, but he thought the disease was different to cat influenza or distemper. In some of these cases the peritoneal covering of the intestine had a pinkish blush; in others the mucous membrane had a greyish red and scalded appearance; and often the lumen of the gut contained flakes of a croupous exudate; in still others the mucous membrane was intensely reddened. Coma usually set in rapidly to be followed by death. All the investigations that had taken place had not settled the question of the unity or plurality of the causal organism of clinical conditions known under the (perhaps) generic term "influenza" in the horse or "distemper" in the cat or dog.

He could not accept absolutely what Mr. Livesey said about broken legs. He had seen many dogs with both radii fractured, and when splints were not put on they bent backwards forming almost a C curve. Not once, but time after time had he seen the leg bent laterally almost at right angles. He saw no objection to splints. If they were not applied the practitioner would, in case the limb became distorted or bent, lay himself open to be condemned by some of his *confrères* as being negligent. Percivall, as far back as 1849, and Youatt before him, treated certain fractures by limiting the movements of the animal in a hamper or confined space.

Mr. DAVIS looked upon canker of the ear as an eczema of the soft skin that lined the ear. Whether it was all set up by the acari or not he did not know, but he should think it was not. He agreed with the glycerine and iodine treatment, and also with Mr. Sutton's view that nitrate of mercury ointment was a very good remedy for the malady. He was quite sure that some cases would never get better; and in his experience white Pomeranians were the worst class of dogs in that respect.

While agreeing with Mr. Livesey that the majority of fracture cases would get right of themselves, he thought it best to put something on to limit the action of the muscles. He thought the best method was a bandage composed of a sort of strong muslin into which an emulsion of dextrine was put. He remembered in one case he put a dextrine bandage on a fractured radius with a terrible wound, making a window for dressing the wound; and the dog made a perfect recovery. In a case of pachymeningitis in his practice, the dog was



paralysed and died, and on making a post-mortem he went to the trouble of getting out the whole of the cord, and he found the conditions Mr. Gray had described. It looked as though the dura mater had taken on the function of a periosteum. Scattered in little areas in many parts of the cord were fragments of fibrous tissue, cartilaginous tissue, and in other places pieces of actual bony tissue. It was natural to think that these would press on the cord and on the roots of the spinal nerves, and give rise at times to a species of neuralgia.

Abscesses between the toes he also found very difficult to cure. He opened them, let out all the contents, packed them full of gauze, and stitched them up, which had the effect of destroying the lining membrane. In the Eastern Counties an enormous number of wens in animals were observed, but by the treatment he had described, namely, evacuating and packing, practically the whole thing disappeared.

With regard to influenza and distemper of cats, their differentiation was difficult. Their agreements and differences reminded him of what was sometimes seen in outbreaks of strangles. In the same outbreak you might get cases where suppuration was absent. Some patients would have laryngitis and pharyngitis, some would show purpura-like symptoms, others would have a pure pleurisy and yet all the types of disease originated in the same infection.

With regard to cats he knew of a family of cats consisting of the old mother, her son, an adult Tom, and two kittens two months old. The Tom took what was apparently a cold. He had sore throat, coughed and sneezed and was off colour for a week, and then recovered. The two kittens caught the malady and displayed the classical symptoms of distemper—discharge from eyes and nose, vomiting and diarrhoea, ulceration of cornea, both died. Then the old mother cat was very ill. Cough difficult, breathing inappetence. She also died.

Post-mortem. Serofibrinous pleurisy. I am confident that these animals owed their illness to the same infection.

On the motion of Prof. WOOLDRIDGE, seconded by Mr. PRICE, it was decided to adjourn the discussion until the next meeting.

Mr. WILLETT proposed, and Mr. Perryman seconded, a vote of thanks to those gentlemen who had produced specimens, the same was carried, and the proceedings of the meeting terminated.

HUGH A. MACCORMACK, Hon. Sec.

#### VETERINARY MEDICAL ASSOCIATION OF IRELAND.

The annual general meeting was held in the Gresham Hotel, Dublin, on Thursday, Jan. 30th. There were present, Mr. P. J. Howard, in the chair; Messrs. Magee, Hare, Watson, Wilkinson, Barlow, Heney, Mahony, Doyle, McCann, McKenny, Reavy, Cargill Patrick, Holland, and Profs. Craig and O'Connor.

The minutes of the last general meeting having already been circulated amongst the members were taken as read and signed.

Letters of apology for inability to attend were received from Messrs. Thompson, Ashe-King, Healy, Chambers, Kerr, Moffett, Jordan, Ross, McGuinness, Preston, R. H. Lambert, Small, Col. Moore, and Professor Mettam.

A letter was received from Mr. Ashe-King resigning membership. His resignation was accepted.

A letter was received from Mr. Jordan, Belfast, resigning membership. The Hon. Sec. was directed to write asking Mr. Jordan to reconsider his resignation.

The minutes of the last Council meeting were read, as follows.

A Council meeting of the V.M.A.I. was held in the Royal Veterinary College, on Friday, Jan. 10th, 1913. There were present: Mr. Dunlop in the chair; Messrs. McKenny, Mahony, and Magee, and Professors Craig and O'Connor.

Apologies were received from Messrs. Patrick, Norris, Chambers, Wilkinson, and the President—Mr. Howard. Minutes of the previous meeting were read confirmed, and signed.

Mr. J. H. Carr, of Valetta, Kingstown, was proposed by Prof. Dunne, and seconded by Prof. O'Connor for election.

Messrs. Shearman, Kilkenny, and Fitzgerald, of Tipperary, were proposed for election by Mr. Howard, and seconded by Mr. McKenny.

It was decided to hold the annual general meeting on Thursday, Jan. 30th, at 6.30 p.m. The Dolphin Hotel to be selected if available for the dinner. It was resolved that the meeting be followed by a dinner at a cost of 5/- per head exclusive of wines. Evening dress to be worn. Mr. McKenny and Prof. O'Connor to make arrangements for the dinner, Mr. Heney to be asked to arrange the musical programme. A sum not exceeding two pounds to be allocated from the funds to go towards defraying the cost of the dinners of any musical friends he may invite.

Arrangements were made for the annual election of officers and Members of Council. In addition to those eligible for re-election without nomination, the following nominations were made by the Council. Vice-President, Mr. B. P. J. Mahony; Council, Messrs. Watson, Doyle, Barlow, and F. C. Ryan. The Hon. Sec. and Treasurer unopposed. The President for 1912, Mr. Howard, was returned unopposed.

The following accounts were passed for payment:—Medal engraving 2/6; printing 16/-; clerical assistant half-yearly stipend £5; secretarial expenses, postage, etc., £2 6s. 11d.; reprints 8/-.

Arising out of the minutes, there was a discussion as to the wearing of evening dress at the dinner, some members considering that the price of the dinner, 5/-, did not warrant the wearing of evening dress. It was resolved that the Council be asked to consider any alteration necessary in Rule 39 relating to the annual dinner.

The Hon. TREASURER then submitted the balance sheet.

J. F. CRAIG, in account with the Veterinary Medical Association of Ireland.

Dr.	£	s.	d.	£	s.	d.
To Balance from 1911	...			27	15	10
Subscriptions, 1912	...	33	16	6		
Arrears paid	...	12	14	0		
Payment in advance	...	10	6			
				47	1	0
Three dividends received				3	3	3
Invested in Consols	£80	2	7			
" India 3½	25	1	3			
Bursary account	40	0	0			
	£145	3	10			
				£78	0	1
Cr.				£	s.	d.
By Transfer to Bursary account	...			16	7	
Reporting meetings	...			8	8	0
Audit Fee	...			1	1	0
Secretarial Expenses, Assistant	...			10	0	0
Printing and circulating proceedings	...			4	8	0
Postage—Secretary and Treasure	...			2	11	11
Stationery and General Printing	...			2	16	9
Hire of Rooms	...			1	10	0

Delegate to R.S.I., York	...	1	1	0
Contribution to Annual Dinner	...	2	0	0
Victoria Veterinary Benevolent Fund	...	2	2	0
International Veterinary Congress	...	10	0	0
Cheque Book	...	...	2	1
Balance	...	31	2	9

£78 0 1

*Bursary Account to Jan., 1913.*

1912.		£	s.	d.
Jan. 1. To Balance	...	45	11	4
Dec. 31. Proportion of Interest	...		16	7

£46 7 11

Dec. 31, 1912.	£	s.	d.	£	s.	d.
By Engraving Three Medals					7	6
Balance	40	0	0			
Included in Bank	6	0	5			

£46 7 11

Jan. 23rd, 1913. Examined and found correct.

JOSEPH H. WOODWORTH, F.C.A.

Prof. CRAIG (Hon. treasurer) said: You have copies of the balance sheet, and I just wish to refer to one or two matters. In the general account the balance over is £27 15s. 10d.—rather a good little sum to have in bank for the purposes of the Association. Then there are the subscriptions for 1912. I think there are 120 members of the Association who subscribed for 1912 £33 19s. 6d. of this sum, 67 or 68 members pay their subscriptions annually to maintain the Association, not only for themselves but also for other members. It is rather a pity that all members do not pay earlier, so that we might have a larger account and be able to do better work. There are three dividends from investments. Last year four were included in the balance sheet. This year only three. That is due to the illness of one of the trustees. I am sure you all very much regret the cause of the omission of this little sum. It does not matter so much for the sum itself.

Refer to the other side of the account and you will see that we have given £10 to the International Veterinary Congress. For the hire of rooms you will notice £1 10s. put down. The hire of rooms in 1911 was not paid, and had to be put in this balance sheet. Although the balance is good you will notice that the balance from 1911 was £31 2s. 9d. and when compared with this year's there was only a difference of about £3. The reason they had not a larger credit balance was because of the amount they had given to the International Congress.

With regard to the Bursary Account a little explanation may be necessary. The money was invested in Consols and the dividends from it were devoted to the paying for medals. You will notice on the credit side there is put down the engraving of three medals. The reason for that was that the engraving of two medals was not paid in 1911, but was included in this year's sheet. I think these are all the items that I need refer to. The only thing I wish to draw your attention to further is the question of subscriptions, and I hope there will be a larger number during the current year.

The CHAIRMAN: You have heard the statement of the Treasurer and what has been done with the funds. Is there any gentleman who has any criticism to make?

Mr. WATSON: Mr. Holland is the Lloyd George of the profession. (Laughter.)

Mr. HOLLAND: I think that name could be more appropriately applied to the Treasurer. (Laughter.) I move that the report be adopted.

Mr. McKENNY: I second that.

The motion was agreed to.

The following new members were unanimously elected: Messrs. CARR, of Kingstown; FITZGERALD, of Tipperary, and SHEARMAN, of Kilkenny.

## ELECTION OF OFFICERS.

The Ballot resulted in the following Officers being elected for the year 1913:—

President.—Mr. P. J. Howard, unopposed.

Vice-presidents.—Messrs. W. C. Patrick and R. H. Lambert, re-elected.

Hon. Treasurer.—Prof. Craig, unopposed.

Hon. Secretary.—Prof. O'Connor, unopposed.

Members of Council.—Messrs. J. B. Dunlop, B. P. J. Mahony, W. H. Wilkinson, J. H. Norris, and A. Watson.

The meeting then concluded with a vote of thanks to the President and Officers for the year 1912 for their services during the year of office, which was suitably replied to by the President, after which the members present attended the Annual Dinner.

## THE DINNER.

Mr. COYLE proposed the toast of the Veterinary Medical Association of Ireland. He referred in terms of praise to the great assistance which the members of the veterinary profession had rendered to the Department, and their willingness at all times to do what they could to assist the Department. He also referred to the Department's scheme of veterinary dispensaries. Now the West of Ireland were able to avail themselves of the services of qualified practitioners, which before had been impossible, and the natives had had to be content with the services of the so-called "cow doctors," they were realising the advantages to be gained by calling in the veterinary profession, and were not slow to avail themselves of this privilege.

Messrs. McKENNY and HOLLAND replied on behalf of the Association, and cordially thanked Mr. Coyle for the manner in which he had proposed the toast.

Mr. MASON proposed the health of the President, complimenting him on the manner in which he had carried out his duties during the previous year, and the valuable services which he had rendered to the Association during his year of office.

The PRESIDENT suitably replied.

Mr. MAGEE proposed the toast of "The Visitors."

Mr. J. D. COPE replied on behalf of the musical and other guests.

Mr. HENEX proposed the toast of the Hon. Secretary, and Prof. O'Connor suitably replied.

The health of the Hon. Treasurer was proposed by Mr. McKENNY, and Prof. Craig replied.

The following contributed to the musical programme: Messrs. W. F. and J. D. Cope, Evan Cox, Jeffs, Cranbury, Clarke, and Rock; and the members of the veterinary profession: Messrs. Mason, Wilkinson, McCann, Doyle, Heney, and the President.

The Board of Agriculture, in conjunction with the Economic Ornithological Committee of the British Association for the Advancement of Science, are engaged on an inquiry into the food of birds, especially those believed to be injurious to farmers and fruit growers. Investigations are at present confined to the rook, the starling, and the chaffinch. The Board would be glad to receive the names of correspondents who are willing to send to an address which will be supplied them, specimens of one or more of these birds at regular intervals during the year. Correspondents are wanted from all counties in England and Wales.

## DIET DEFICIENCY AND DISEASE IN LIVESTOCK.

By FRAS. EVELYN PLACE, B.Sc., M.R.A.S.E., B.V.Sc., M.R.C.V.S.  
M.R.I.P.H., etc, Veterinary Lecturer to the Department  
of Agriculture, South Australia.

A paper read before the Australasian Association for the  
Advancement of Science. Veterinary Section. Melbourne,  
1913.

Gentlemen,—Highly as I esteem the honour of being invited to submit a paper before such a learned and erudite body as the Australasian Association for the Advancement of Science, and much as I appreciate the opportunity held out by that body to enable the veterinary surgeons of the Commonwealth and Dominion to foregather under the aegis of its patronage, I feel that as a comparatively new comer I should more fittingly assume the rôle of postulant at the feet of such Gamaliels than take upon me the robe of a teacher, and it is in this frame of mind that I venture to occupy your attention for a short while with some of the aspects presented by the connection between Diet Deficiency and Disease in Livestock. Some of the phenomena attracted my attention many years ago, during dry summers upon the moors of Devon, but during the Indian famine of 1904 and 1905 I began to collate certain symptoms, and to assign to them in my own mind a chemico-physiological importance in the conditions which prevailed among the livestock in the famine stricken desert of Rajputana. Upon my arrival in Australia some three years ago, I found in Victoria and South Australia that the minds of stockowners were being exercised over similar if not identical problems, quaintly named in the latter state "Dry Bible," and "Coasting," while Tasmania and New Zealand meet with trouble, possibly more akin to the English forms, in "Midland Disease" and "Bush Sickness," and South Africa joins in with Lamziekte and Stieffziekte. In the face of all of them the veterinary profession has unfortunately to admit its ignorance of the causative factors, and has to adopt empirical remedies, such as bone meal, and to endure a certain amount of scorn from the ignorant and unscientific who "know all about it," while the profession is still delving amid the mass of contradictory report and confusing symptoms in an earnest, and I hope soon to be successful endeavour to elucidate the reason of phenomena noticed.

If I may be allowed I would revert for a few moments to a number of diseases which affect ourselves, and which I may refer to as belonging to groups such as the beri-beri, the scurvy, and the pellagra groups, and which are recognised by a large and increasing number of scientists as yielding to suitable diet, and I would class myself among the believers that they are caused by deficiency of certain food elements, the absence of which has a marked and serious effect upon tissue metabolism in nerve, muscle and bone, a group of organs which compose about 60 per cent. of the bodies of our domestic animals, and which hitherto have received more attention from the breeder of livestock than from the veterinary surgeon, if we omit those which build up the legs of an horse, in which the Psalmist warns us not to put our trust, plainly with prophetic vision foreseeing the advent of motor traction, and its effects upon the income of the veterinary practitioner.

### SYMPTOMS.

For a moment I will briefly sketch the symptoms of beri-beri as I have seen them occurring in some poor wretch who has vainly been endeavouring to keep body and soul together upon a handful of mouldy, weevilly

rice; and then I will try and draw a parallel from a horse dying in the ninety mile desert.

The patient loses weight till he is reduced to a skeleton, œdema, contractions, paralysis and anæsthesia of the limbs, marked nervous symptoms, due apparently to degeneration of the peripheral nerves and those of the heart muscle, followed by death, or recovery without any treatment beyond a change of locale, with most probably important additions to the defective diet. So much for the human animal, now for the equine: the collar grows too large, fresh holes have to be punched in the girths, the legs swell and the spur vein fills, he trips and totters, and without notice collapses on the sand without a groan or struggle, with spume at the nostril and bough but hide upon his ribs.

Or look for a moment at a case of scurvy with its anæmia and cachexia, its local hæmorrhages and hæmorrhagic inflammation, the spots upon the ribs, their dislocation from the cartilages, with perhaps neuritis and anæsthesia of the limbs; and compare it with a "coasty" heifer, with her bloodless eyes, and bottled jaw, her gaspy breath, due to her ribs failing to distend, her tottering walk and swollen fetlocks, and finally her feeble helpless efforts to control her limbs and raise her wasted carcase.

Is not one justified in asking: Are these mere coincidences or is there a closer connection? For my own part I think there is, and it is interesting to note how veterinary surgeons have accepted and rejected the same theories with regard to this class of disease, as have members of the sister profession, though they have worked apart: Intoxication, Auto-intoxication, Infection, and even the Photodynamic theories, like ancient dynasties, have risen, held their sway and gone, while now the deficiency theory has been hinted at by Theiler, Gilruth, and Aston, though but tentatively, and as through a glass darkly. For to us the proteid has been a mass, a pyramid viewed in the mist of early dawn, and in the noonday heat its building stones have but afforded us shelter while we slept, their individual characters, their cryptic signs are still to seek, and perhaps at eventide there shall be light.

The cow with her hide-bound belly, and stiff stretched neck chewing the bones of some less lucky mate has suggested the want of phosphorus, and kindly consideration has provided a bone meal lick, but is not this significant of a certain amount of rough and ready argument forced upon the veterinary surgeon by the pressing need of staying the plague, and is it not characteristic of a certain roughness in feeding experiments which have been carried out. We see the proteid, the carbohydrate, and the fat—the tricolour which proclaims the revolution—but we are deaf to the groans, the gabelle raises, we think the miller but dips out a negligible mite, we wonder when red ruin racks our state, we fail to miss the amides of our meadow hay, we ignore the subtle ethers which scarce move our chemists' scale, and wonder when our beast falls, never to rise again.

Led by the chemist, whose accuracy far exceeds our own, we have framed standard diets with correct nitrogenous ratios, we have carefully balanced the income and the outgoing, at least in theory, and our American cousins have also in fact, in some careful series of experiments, especially those carried out at Wisconsin, without success. Here in Australia we have no data for the composition of our common feed stuffs, we know less about them than we do of the component parts of a German sugar beet or an Indian millet, and our ignorance falls upon our own heads in the nemesis of "dry bible" and "coast." South Australia at least is endeavouring to lift the veil of this darkness, but many years must elapse before the observations and experiments now being carried out at the Agricultural College, Roseworthy, can be finalised, though from time to time parts of them may be available. Up to now we have no

Australian analysis of Cockie chaff or wheaten hay, our grasses and native clovers are unknown quantities, but when we seek them out we must remember that calorie figures are incomplete records of the value of a food stuff, and that the innate metabolism of a grain has a physiological value which we cannot weigh or count in figures. In short that the feeding value of any food is based upon a most complicated chain of factors each dependent on the other, till the mind becomes dazed at the number of combinations any one series may present.

The appearance of the stock in the dry districts of South Australia leads one to think that a very large amount of feeding value of their forage is expended in maintenance—more than the five-twelfth's of Kellner's observations. Even those which are keeping their condition give one the impression that too great a proportion of their energy is expended in managing to live: to use a feeder's expression they have no "bloom," or in butcher's terms they "kill light." A somewhat extensive acquaintance with these beasts in the slaughterhouse supports this idea; their musculature is devoid of inter-muscular fat, and its water content is far too high proportionately, so they shrivel when they set, and resemble biltong more than beef, and when canned their gravy is gelatin rather than jelly.

A high proportion of this class of beast has an acid reaction with the urine, which is also the case in "dry bible," and in some forms of "coast disease," anent which it is interesting to recall the note in Smith's Physiology, "When the herbivora are starved their urine gives an acid reaction." Now as physiologists we must look further than the kidneys and bladder for the origin of this change, and we find it no doubt in the muscles. This is not the place, nor if it were, would time permit to go into detail as to chemical changes in the muscles, but it is worth noting that they become strongly acid in reaction when the call upon their endurance is excessive, either as labour or as deficiency in nutriment. In this connection we must call to mind the fact that food deficient in nutriment not only fails to nourish but also lowers the digestibility of nutritious food fed with it, so that large feeds of straw chaff with a modicum of inferior wheat such as form the standard diet of many horses do not conform to the requirements of their system, even when liberally diluted with sand, nor are they calculated to produce meat or milk.

At first glance the analysis of certain straws does not show them to be entirely unsuited for use as food, but wheat straw seldom shines out well, Kellner's figures being—water 13.6, nitrogenous substances 3.3, fat 1.3, soluble carbohydrates 39.4, fibre 37.1, ash 5.3, with a digestibility of less than a third of its weight, and this is the diet on which a large proportion of Australian stock are supposed to find their nourishment.

For an analysis of wheaten hay we have to go to America, and it is by no means improbable that the analyses made there are those of a fodder differing in many effective elements from the same substance here, but it shows a marked improvement in the nutritive ratio, and reveals the fact that cockie chaff probably saves the situation. It is to be hoped that the Rose-worthy experiments and observations will set this matter more clearly before the feeder. The careful study of the analysis of the common fodders in use in Australia is of value, but analysis alone is most misleading, digestibility is a better guide, but assimilation is not synonymous even with this, as the appearance of stock on such country, where undoubtedly they are digesting a fair proportion of what they eat, clearly shows, for frequently a change to land which does not seem so good brings about an alteration for the better. When dealing with a metabolism in the tissues we are dealing with only a limited series of factors, metabolism in the fodder itself while growing, and after cutting and while in store, to say nothing of the natural action of

the enzymes of the digestive juices in partnership with those of the fodder, are all issues which have to be studied both alone and in conjunction.

In Australasia livestock present the symptoms of the great groups of deficiency diseases observed in man, the beri beri group is typified by the so-called epizootic paralysis, and the disease in horses where the collapse is so sudden that death may occur upon a journey without warning, reminding many who went to the war in South Africa of the fatal horse sickness prevalent in that country, whose lamziekte and stiffziekte have their counterparts here in neat stock as "coasting" and "dry bible." The scurvy group appear in horses, cattle, and sheep in forms widely known, but generally receiving local and often unmeaning names such as "crankums," rheumatoid arthritis, and so on. The pellagra group also have their counterparts in skin and stomach lesions, in the central and northern districts of Australia, the Midlands of Tasmania, and the North Island of New Zealand, a chain of tracts which have in common scarcely any climatic or botanic similarities, which fact almost forces on one the necessity of falling back upon physiological resemblances.

Fagopyrismus in cattle, and epizootic paralysis in horses naturally turn the thoughts to the study of the balance of metabolic factors and their influence on the major physiological processes in livestock, because they are instances of the disastrous effect of very slight alterations in those balances. Among physicians, one school scoffs at the laboured triturations of the other, which in turn smiles in pity upon the germ bespangled broths and jellies of the first, and both in turn are the sport of yet a third party which, while deriding drugs or sera, agitates the public mind with the desire for frequent change both in venue and diet to say nothing of habits and thought, and between them nature waves her wand and produces:—eggs and cream, lamb chops and Murray cod, strawberries and apples, ale and tea—all just proteids, carbohydrates, fats and water, yet every one distinctly different, and pleasing in their variety. Their distinctive characters are to a great extent amides or amido-acids, almost negligible from an analyst's point of view, but recognisable by the working bullock that suddenly pulls up to crop some succulent weed by the roadside, or the colt which browsing by its dam picks off the dainty tops that please its palate, and even the farmer seeks for them when at this time of year he bemoans the fact that pastures, so good three months ago are not able to carry the stock now, though, minus the water, the crop upon them is probably weight for weight richer in proteids, etc., than it was then.

And here we must pause a moment to consider an important factor which probably has much to do with deficiency in Australian fodder, namely, the fact that plants grown in dry heat are deficient in many of their natural amides; that when present these undergo metabolic changes which render them unadapted to the use of stock—a fact unpleasantly forced upon my notice some few years ago in Burma by the untimely and numerous deaths of ponies fed upon *phaseolus lunatus* and similar legumes grown in a dry district, while lower down in the moister parts the same plants were fed regularly without harm, and I have no doubt that the contradictory reports about Soya beans in England arise from the conditions under which they have been grown, in spite of the similarity of the analyses in all such cases.

Recent investigations by the Commonwealth Statician have demonstrated the curious effect upon the birth and death rate of varying quantities of moisture in the atmosphere, as applied to man, and the practical farmer daily demonstrates the same thing in his movements of stock, while the creek and the waterhole seem to be the determining factors in the utilisation of the amides in the fodder, illustrated by the saying I heard some thirty

years ago in the Riverina, that "if the sheep could have a blade of grass one day and a drop of water the next, they could weather through the drought, but with the grass alone they could lie down and die."

Research has demonstrated that in the large nerve organs as well as in the peripheral nerves of animals that have starved, or in the polyneuritis of pigeons, and in the impaction paralysis of cattle, there is a marked deficiency in the normal phosphorus content of those organs, despite the fact that phosphatic content of their food has been ample, and one knows how very disappointing from a therapeutic point of view the administration of phosphorus proves to be in many cases, while in others it seems to act like a charm. A series of analyses of the phosphorus contents, both actual and relative, of the otoliths in paralytic stock would probably illuminate the obscurity of many of the symptoms.

When one considers that the caloric energy of bad grass hay as compared with good grass hay is very little more than half, and that five-twelfths of the amount of food eaten has to be used for maintenance, also that the wastage of bad hay is double that of good, and that the more inferior the fodder is the greater the depression of digestion, also that when in conjunction with these factors they are all intensified if the water supply is insufficient, one is bound to consider that under some Australian conditions livestock must be chronically upon the verge of starvation, which as a matter of fact is just the impression that I gained when first studying these conditions, although an absence of thirteen years from England and an extensive acquaintance with the appearance of stock in India under famine conditions should have familiarised me with the symptoms of existence under such disadvantages. One notices that when phosphorus is available, as when bone meal is given, that the nerve lesions are minimised, but that the appearance compatible with bloom and health are only restored when natural fodder in an actively growing stage is to be had, unless one makes an exception in the case of stock receiving ensilage, a form of nourishment in which, if the natural amides have undergone change, their place is taken in some degree by ferment products nearly allied to them. In this connection one's mind reverts to the empiric remedies of currants and yeast, the administration of which is undoubtedly followed by a measure of success in this class of disease which cannot fairly be attributed to a merely mechanical action upon the ingesta.

One other point must be called to mind before we commence to collate the clinical facts we have been considering, and that is the frequency with which enlargement of the thyroid is met with in the class of disease under consideration, one finds this in all classes of stock—colts, calves, mares, geldings, cows, and steers, a list which excludes those whose generative organs are immature, or male animals, which as a rule are fed with a diet of superior order.

It may be that from a clinical point of view I have not brought forward sufficient evidence to convince many that we are dealing with groups of disease resulting from diet deficiency—that is deficiency in some essential necessary for the normal physiological processes, diseases that may still be regarded by many as intoxications—a view I must confess I still have a hankering after, although my faith in it is daily being undermined by the contradictory and inexact statements which are constantly being put forward with a view to make its position more tenable: but we have the fact that these deficiency diseases break out in countries where a certain unvarying diet is partaken of for long periods, while near by, stock seem to be exempt from their attack, due no doubt to some minute alteration in the diet which contains the necessary protective bodies.

As I have already alluded to the similarity in the course of the symptoms, I may here merely remark that

the most prominent ones are found in all the diseases we are considering, namely a general cachexia with enormous loss of weight, marked nervous symptoms, due most probably to degeneration of the peripheral nervous system, centripetal rather than eccentric. And roughly we know that all these diseases can be prevented by the addition of certain substances to the food, and in some cases, when the disease is not too far advanced a cure may be hoped for.

In the case of human diseases these substances are known to be organic bases and are termed "Vitamines." Those of the beri beri group are the scurvy group, being well recognised and to some extent being interchangeable, though not always. Although veterinary research has not yet gone thus far, veterinary clinical observation, which I believe I may justly claim as being keener than that of the sister profession, has supplied the missing substances in crude form—bone meal, ensilage, cattle spices, and so forth; while the beans, always considered necessary for muscular growth and fitness in training stables, supply the vitamins in profusion. Facts that Gryn's and Eykman applied to the treatment and investigation of deficiency diseases, and which Worth and myself experimented with in Burma, finding that the protective substance is soluble in strong alcohol and effective even after the elimination of alcohol soluble proteids. The fact that the phosphorus content of some fodders acted as an index to their harmfulness or otherwise, suggested that probably there was a deficiency of certain organic phosphorus compounds in the food, which has sufficed for Schaumann to construct his phosphorus deficiency theory.

Investigation has proved that the protective substances, whichever they may be, are: Soluble in alcohol, in acidulated alcohol, and water. Dialysable. Destroyed by heating somewhat above 100 C. They are neither salts nor proteins. They are easily destroyed by chemical manipulation, and on this account have most probably escaped the observation of earlier investigators.

Funk concluded that owing to the stability of certain substances from yeast in acid solution these protective substances are probably nitrogenous, of simple chemical nature, and belonging to the group precipitated by phospho-tungstic acid, and tracked them down till he obtained a compound with the formula  $C_{17}H_{20}N_2O_7$ . The quantity of this substance present is extremely small, 1 kg. yielding only 0.5 gm. and the curative dose was found to be very small indeed, but varying with conditions of nerve degeneration and subsequent diet, resulting in some critics considering the substance to be merely an activator, a member of the group of hormones. Subsequent investigation however upsets this theory and gives rise to another—that the neuritic symptoms of starving animals are dependent not only on phosphorus deficiency but also on nitrogen deficiency in the nerve organs, and that in the absence of the vitamins the organism cannot synthesize its nerve elements, and so deficient metabolism ensues and death results. Here the yeast and currants of the empiric tell.

Vitamine is necessary for the metabolism of the nervous tissue, and its lack forces the animal to take this substance from its own tissues. The result is enormous loss of weight, and when the available stock begins to run short there is a breaking down of the nerve tissue, with the resulting symptoms, among which, in the south-eastern parts of South Australia, is the form of epidemic dropsy so reminiscent of the so-called wet beri beri.

I have already drawn the parallel between some forms of "coast" and scurvy, the latter being so prevalent on a diet of starch and preserved food, and yielding so easily to lime juice and fresh fruit and vegetables, especially onions, as I, after some months on boiled milk and brandy, have reason to be thankful for. The prevalence of scurvy of the gums is responsible for

many of the dental troubles which supervene on the attentions of quack horse dentists, and is possibly the reason for the existence of these operators.

One of the symptoms of this form of disease in cattle in South Australia is a blue hyperæmia of the gums, and in some instances ulceration, which have misled me into imagining I had lead poisoning to deal with, until undeceived by chemical analysis. In human scurvy only fresh food possesses the protective power, dried material is entirely valueless, but lime juice apparently is possessed of a greater quantity and that more stable, and offers a promising therapeutic remedy for stock.

In the process of germination, seeds are known to develop all kinds of enzymes in order to utilise their food reserves, and grains such as oats develop an anti-scorbutic agent after they have germinated, but they lose this power when they are dried again. This is also true when the process of ripening is not completed, so that the shrivelled wheat in Australian hay is probably unable to carry on this process even although its nitrogen content is high.

Infantile scurvy is not uncommon in factory-fed calves and pigs receiving waste milk which has probably been preserved by heat. Although the vitamin in milk is stable it is destroyed by heat, the extent of its destruction depending on two factors, the temperature and length of time of heating. Further factors, says Funk, in a passage which is pregnant with importance to Australian dairymen, are:—The reaction of the milk, the natural content of vitamins in the cow's milk, which of course depends entirely on the content of vitamins in the cow's food—and so far we know nothing about them, except the financial loss such ignorance entails.

All the symptoms of the disease we are considering can be produced in miniature in guinea-pigs—the loss of hair and weight, the paralysis of the hind legs, and catarrh of the intestines—by a deficient diet, deficient not in quantity but in protective substances. And their blood is sterile, like those other beasts we deal with. The results of modern investigations in deficiency diseases are not well known to physiologists, and are practically unknown to veterinarians. Though Mandel and Emil Fischer have long ago forecasted the results at which we are arriving, and have pointed out that these substances protective have been too easily overlooked.

In the metabolism experiments performed with a view of determining the nutritive value of different proteins the question of vitamins has not been considered, but if they are not present, even though the nitrogen content is high, the animal wastes and fails, and in future experiments they must be carefully considered. Abderhalden's experiments in feeding dogs with their own proteins, and his rather too premature conclusion that the question of artificial food is solved, have their value in calling our attention to the length of time an animal can survive upon its own tissues or those closely allied to them, and enable us to understand how the famine cow survives upon dried dung cakes or the "dry bible" beast on mummified rabbits that have succumbed to phosphorus in overdoses.

Many years of careful work are still before us before we know much about vitamins, and similar protective substances, but my purpose will have been served if by these few observations I have succeeded in arousing among my professional brethren a fleeting interest in them, for it is quite possible that their importance is much greater than has been hinted at in this paper, and a predisposition to many other diseases may be due to a deficiency in these protective substances.

We shall see the whole importance of these protective bodies when we know for what purpose these small quantities of substances are required in the animal

organism. It is obvious that the minute amount necessary cannot be considered from the point of view of food, unless they are the ambrosia and nectar of the ferments and hormones, or the favoured vintages of the internal glands, such as the thyroid and pituitary.

The further investigations of vitamins, the knowledge of their chemical composition, and their fate in the animal body should help to eliminate from veterinary phraseology such classic terms as Dry Bible, Enzootic paraplegia, Coasting, and other high or low sounding titles which mean nothing, and only serve to raise a smile upon the faces of those who deem we are endeavouring to hide our thoughts in words.

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#### Foot-and-mouth Disease.

The House of Commons on Feb. 8th went into Committee of Supply on the Supplementary Estimates, Mr. Whitley in the chair.

On the vote of £63,572 for the salaries and expenses of the Board of Agriculture,

Mr. Hugh Barrie moved a reduction of the vote by £100 for the purpose of raising a discussion on the action of the Board in regard to the outbreak of foot-and-mouth disease in Ireland. He complained that the action of the Department had seriously prejudiced and imperilled the Irish cattle industry. The final blunder—that of imposing an embargo on Irish cattle for twelve hours at English ports—must have the effect of permanently discrediting the industry, and he urged the President to restore to them the free trade in cattle which they had a right to claim. They were willing, if it was thought necessary, that the short detention on the other side of the Channel should be increased. So anxious were they to restore confidence in the trade, that they would welcome the best experts of the Department being sent over to Ireland to co-operate with the Irish inspectors, and make inspection doubly secure.

Mr. Field said opinion in Ireland was solid against this twelve hours' detention in England. He suggested the appointment of an Advisory Committee, with a view of ensuring unity of action between the English and Irish Boards.

Mr. Munro-Ferguson thought the recent losses due to the outbreak would be a blessing in disguise if they taught Ireland to develop the feeding of cattle instead of sending her stores to England and Scotland.



A remark by Mr. Munro-Ferguson expressing lack of confidence in the regulations of the Irish Department provoked a protest from Mr. T. W. Russell (Vice-President, Irish Board of Agriculture), who asked for specific instances. Mr. Munro-Ferguson said he was not prepared to give specific cases.

Mr. Russell: Then I do not think it ought to be said. Mr. Munro-Ferguson said he thought it ought to be said, because there was no doubt it represented the feeling which prevailed among British agriculturists.

Mr. T. W. Russell claimed that the prompt and severe steps which the Irish Department had taken at the commencement of the outbreak had saved us from the disaster of the disease spreading all over the country. There was not the slightest possibility of the Department accepting the suggestion that there should be an Advisory Committee formed. In a matter of this kind absolute promptitude was essential, and an hour's delay might be vital. With regard to the suggestion of Mr. Barrie that half a dozen English inspectors should be sent over to Ireland for the purpose of joint inspection in Ireland as a means of restoring confidence in English minds, he was not sure it would have that effect. There was an enormous trade, and his staff simply laughed at such an impossible and impracticable proposition. Moreover, he was not willing to consent to such an implied censure on his Department. The Irish inspectors had not failed him at the crux. Since the first outbreak at Swords nearly a million head of cattle had passed over the Channel, and not a single case of foot-and-mouth disease had been detected at any English port. That was good proof of the perfection of the organisation of the Irish Department, ably backed up, as it was, by a police force superior to the police of England and Scotland. If the outbreak was dealt with in a way that had cost much, it was also dealt with in a way that had saved much.

Mr. Runciman (President, Board of Agriculture) said there was no doubt that from the first English Board of Agriculture had been the centre of conflicting interests, and in the midst of these conflicting interests the Board had to form its own opinion and take its own course. He had found himself in conflict with great local authorities in Great Britain. The county councils were much more alarmed than any other section, and when they thought he was acting recklessly in relaxing the restrictions, they continued their additional restrictions, because they thought he was going too far in the Irish interests. These difficulties had not lessened, but he believed that at the present time Great Britain and Ireland were freer from any form of cattle disease than in any other country in the world.

If that had not been the case, it would not have been possible for the Board to relax the restrictions so rapidly. A bad impression was created in England by the endeavour of the hon. member for North-East Cork (Mr. T. Healy) to belittle the outbreak. The Departments regarded that as a great calamity, not only for Ireland, but for England. He hoped presently to be able to publish a full report of all the cases, so that the House could judge whether the Board had acted properly. Before he issued the Order on January 28th, he was advised by some people in Ireland that twelve hours' detention, or at any rate some detention and inspection at English ports, would be good and could do no harm. He was also informed by everyone in England that without inspection here confidence could not be restored in the Irish trade.

It had been suggested that the twelve hours' detention was superfluous, but it had enabled the Board's inspectors to detect the existence of other diseases as well as foot-and-mouth disease. They had had some experience of the system, and though they had not come across a single case of foot-and-mouth disease they had

come across cases of animals which had run the gauntlet in Ireland appearing over here with another disease. Sheep scab had been found in large numbers of animals landed on this side. Only two days ago three new cases of sheep scab were found at Birkenhead. That was a justification from experience of the necessity of inspection at the ports on this side. There was ample accommodation already at all the existing lairages for 34,000 cattle per day, and the average number coming from Ireland was between 34,000 and 35,000 weekly. The charges varies from 1/- to 2/- per head, and the Board would take care that the charges were not excessive.

The motion for reduction was negatived by 142 to 7, the figures being received with derisive laughter. The vote was carried by 141 to 6.

#### Prosecutions by the R.C.V.S.

William Petchell, of Exton's Road, Lynn, was summoned on the information of Cornelius Gore, on behalf of the Royal College of Veterinary Surgeons, for falsely pretending to be a veterinary surgeon on January 25. Mr. G. F. Carr (Messrs. J. A. Parsons and Carr) appeared for the prosecution, and handed in College Register, which, he said, did not contain the defendant's name.

Cornelius Gore, retired inspector of police, said he visited defendant's house on January 25, and saw on the door of 26 Exton's Road 'on a white plate the words "W. Petchell, Veterinary." Witness added that the man had been practising to the best of his skill.

Defendant said that the plate was not put on with his consent and he latter asked the man who put it on to take it off. It would have been removed earlier but for the man's illness.

Mr. Carr: Would it not have been better to have had it off before you got into trouble?—I didn't know I should get into trouble or I should have had it off. Defendant was fined £2, with 8s. 6d. costs.—*The News and County Press*.

#### "CANINE SURGERY"—SUMMONS DISMISSED.

At Llandaff, on Monday, Feb. 10th, Albert Edward Kennard, of Llandaff North, was summoned at the instance of the Royal College of Veterinary Surgeons, the charge being that he, "not being on the Register of Veterinary Surgeons, and not holding at the time of the passing of the Veterinary Surgeons Act, 1881, a veterinary certificate of the Highland and Agricultural Society of Scotland, did unlawfully use and take an addition and description—to wit, "canine surgery"—thus stating that he was specially qualified to practice in a branch of veterinary surgery, contrary to Section 17 of the Statute." Mr. St. John Francis Williams appeared to prosecute, and Mr. A. T. James was for the defence.

Mr. Francis Williams said that on December 13th last a Mr. Howe, acting upon instructions, went to Mr. Kennard's residence, and found outside the house a red lamp with this inscription on it—"A. E. Kennard." He also found on the wall of the house a brass plate with a similar inscription. He was then shown into a room, where he had a conversation with Mr. Kennard. Mr. Howe told him he had a Persian kitten that wanted attention, and in answer to this defendant said the fee would be 7/6, adding that any ordinary veterinary surgeon would charge 5/-, but that he would charge 7/6 because he always used an anæsthetic. The allegation was that in regard to the inscription "canine surgeon," and the conversation in which he compared himself with some veterinary surgeons, he held himself out as qualified.

Mr. A. T. James contended that the description 'canine surgery' did not apply to the defendant himself, but to

the place where he carried on his business. He said the defendant was perfectly entitled to practice provided that he did not hold himself out to be specially qualified. Defendant, who gave evidence, said he was a boiler-maker for years.

The summons was dismissed with costs.—*South Wales Echo*.

#### THE R.C.V.S. REGISTER, 1913.

This year's Register has just been published. It is not noteworthy for the addition of new features, as its immediate predecessors have been, but the additions of recent years remain, and the volume fully maintains the high standard which we are now accustomed to expect from it. It contains a calendar, list of members, existing practitioners and officials, information regarding schools, prizes, and the conditions of entry into the various public veterinary services, and the written questions set in all classes of the professional examinations in 1912. Generally, it resembles last year's Register with the lists brought up to the present date.

One or two points arising from the revision of the lists are interesting. There are now 218 names on the list of "existing practitioners" as against 226 last year—a surprisingly small reduction, considering the ages these men must have reached. A more important point is the large number of qualified men whose addresses are unknown. No less than twenty-five names are listed under "Addresses wanted," and all these will be removed from next year's Register unless information concerning them comes to hand in the meantime. Those

whose names are so removed will have no one to blame but themselves.

As is now usual, the Register is published by the R.C.V.S. at 10, Red Lion Square; and a copy may be obtained from the Registrar for 3/6. It is well worth the sum to every practitioner, for, in addition to its statutory function of stating the names and addresses of members, it now contains such a variety of professional information that it is both a useful guide—especially with regard to legal questions—and a really readable and interesting volume into the bargain. W. R. C.

#### The Curry-Herbert Meat-Curing Process.

We have personally had an opportunity of inspecting (and tasting) a portion of a silverside joint, cooked in the ordinary way by Mr. Hollis, of the Barley Mow, Long Lane, E.C. The original weight of the joint without bone was 17lb 6oz., and was cured in about three minutes, and cooked at once, on the afternoon of Thursday, 38th ult. On weighing it next morning (Friday) when cold, the weight was 16lb 6oz., or a loss on the original weight of only 5½ per cent. As the usual loss in weight on meat cured by the old method is anything from 20 to 25 per cent., this great gain in weight of meat after cooking must appeal to all interested. The meat was of excellent quality, while its remarkably fine colour throughout made it exceptionally attractive. —*Meat Trades Journal*.

[In this process, the brine is injected by the arteries]

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended Feb. 15	15		16				6	9	90	160	11	25	218
Corresponding week in	1912	25		28			1	2	118	200	17	59	985
	1911	23		27			6	55			30	39	459
	1910		29	34			3	17			31	35	352
Total for 7 weeks, 1913	88		100				26	88	489	1320	79	238	2835
Corresponding period in	1912	177		202			17	37	1008	2483	108	427	5371
	1911	155		172			35	135			215	252	2805
	1910		208	246			46	153			214	157	1189

† Counties affected, animals attacked: Derby 1, Essex 2, London 5, Lanark 1.

Board of Agriculture and Fisheries, Feb. 18, 1913.

IRELAND. Week ended Feb. 15								Outbreaks			
...	...	...	...	...	...	...	...	4	21	6	5
Corresponding Week in	1912	...	...	...	...	...	...	4	19	1	6
	1911	...	...	...	...	...	...	4	22	2	67
	1910	...	...	...	...	...	...	1	22	1	59
Total for 7 weeks, 1912	...	...	...	...	...	...	...	61	135	34	157
Corresponding period in	1912	...	1	1	...	...	...	17	143	16	170
	1911	...	3	3	...	...	...	19	148	23	408
	1910	...	2	2	...	...	...	16	157	6	215

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Feb. 17, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



**Donation to R.C.V.S.**

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following donation to the College funds for 1913 from :

Mr. F. C. Hobbs, Newport, Mon. £1 1 0

**ARMY VETERINARY SERVICE.**

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Feb. 14.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Capt. (Hon. Vet. Lieut. in Army) W. S. Mulvey resigns his commission. Dated Feb. 15.

Col. E. H. Hazelton, A.V.S., embarked for India on 15th inst. to take up the appointment of Principal Veterinary Officer in that country.

Capt. W. N. Rowston has been granted three months sick leave of absence.

The undermentioned officers arrived from South Africa on 8th instant, and have been posted to the stations as stated :—Capt. H. Bone to Norwich, Capt. W. H. Taylor to Aldershot.

Lieut. H. C. Lowry, Special Reserve, has been granted twelve months leave of absence for the purpose of taking up an appointment with the South African Government in Rhodesia.

Lieuts. S. E. Holmes and D. R. Williamson, Special Reserve, will join at Aldershot for a three months course of instruction on 24th inst.

**A. Rogerson, F.R.C.V.S.**

Deep sympathy will be felt for the friends and relatives of Mr. Rogerson who was found dead in his bed early this week. For many years he has acted as veterinary surgeon to the Midland Railway Company, and had established a reputation for care and skill beyond the ordinary. As a regular attendant at the meetings of the Central Veterinary Society—of which body he was past President, and for long a member of Council—he often contributed from his store of experience. He first clearly demonstrated that all intestinal calculi are formed round a central foreign body. His loss of horses from calculi was so large that he advised passing all the oats over magnets to remove fragments of nails which became mixed with the grain on board ship. After this machine was adopted, deaths from calculi ceased. He was an expert on railway accidents to horses, and an authority on the methods of securing horses in railway boxes. Mr. Rogerson took great interest in the students at Camden Town, classes of whom he would take round his horse-infirmiry. He frequently acted as examiner for some of the College prizes.

He will be remembered as a modest, genial gentleman of whom all his friends spoke kindly, and as a practitioner who took an unusual interest in his cases, and kept up to the times.

Lately Mr. Rogerson had trouble with his eyes and consulted an oculist, who diagnosed cataract in both eyes, and gave no hope of successful treatment. This seemed to have shocked depressed him, and at the inquest the following pathetic letter was read :

"I am rapidly going blind from cataract. Rather than inflict a blind father upon you, I prefer to end my existence. I cannot see my way to do my duty to the Midland Railway Company."

A. ROGERSON, F.R.C.V.S., Camden Road, London.

Graduated, Lond : Jan., 1881, F. 1890.

Mr. Rogerson was found dead on Monday morning. His age was 55 years.

JOHN REID, M.R.C.V.S., Wells, Somerset.

Glas : April, 1883.

Death took place on February 2nd, from pneumonia, followed by heart failure. Aged 53 years.

THOMAS BARKER, M.R.C.V.S., Ockley House, Stokesley, Yorks.

Edin : April, 1864.

Mr. Barker died on Feb. 14th, at the age of 78 years, from cardiac disease.

By the death of Mr. Barker there is removed the last member of a family of veterinary surgeons well known and highly esteemed in the Cleveland district of Yorkshire for over two hundred years. One of four brothers, he studied under Professor Dick, and graduated at Edinburgh in April, 1864, and soon after came to London as assistant to the late Edward Coleman. After some years he commenced to practice at Guildford, Surrey, but soon returned to London. He bought a practice in Marylebone which he held for over 30 years. When he retired, about 13 years ago, he returned to his native town in Yorkshire where he lived until his death. Thus passes away one of the older school of veterinary surgeons, gradually becoming less in numbers.

The shops in Stokesley were all closed during the time of the funeral, and many townsmen were at the grave side showing a last token of respect to him.

**Veterinary Societies—Addresses.****BORDER COUNTIES V.M.S.**

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Hon. Sec. (pro tem.) : Mr. F. W. Garnett, M.R.C.V.S.,

Dalegarth, Windermere

Meetings, Second Friday of Feb., June, and October

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Hon. Sec. Mr. J. Gibson, 16 Overdale Gdns, Langside, Glas

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Grosvenor Street, Oxford-st., Manchester

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# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1286

MARCH 1, 1913

VOL. XXV.

## PROFESSIONAL ESSAYS.

Within the last few years, a change has become apparent in the essays submitted to our professional associations. Generally speaking, they have gained in interest and value; and this is largely due to alterations in their lines of construction. Not very long ago many essays were little more than compilations from class-books. Not much knowledge on the part of the hearers was pre-supposed; and when the classical views of the nature, causes, symptoms, and treatment of the disease under consideration had been laboriously detailed, small space was left for the individual experience and opinions of the essayist. Very often the latter element was scarcely evident in the paper at all. Many an experienced practitioner has produced an essay which might perfectly well have been written by a layman who had never seen a sick animal, but who had access to a few veterinary text-books. Such papers are now less common than they used to be; and two other varieties of paper are to a great extent taking their place.

The first is the simple collection of clinical cases—often of very varied nature—put together in the form of a paper, and very interesting indeed such a paper can be. Nothing is more likely to evoke a brisk discussion; for a good selection of cases recalls more or less similar ones to almost every listener. No paper, again, is so easy for a working practitioner to prepare; the work may be done in spare half hours as the cases occur, and the result will amply repay the slight trouble.

The second resembles the old text-book essay thus far—that it usually deals with one disease or allied class of diseases. But text-book knowledge in the hearers is taken for granted; the essayist goes beyond it, and either simply contributes the result of his own thought and experience upon subjects already recognised as debateable, or advances new queries and suggestions for his audience to solve and criticise. It is much more difficult to prepare a good paper of this nature than to arrange a series of clinical records, for it demands that the essayist should have given some special study to his subject. But such papers mark independent thought on the part of the writers, and stimulate the same thing in the hearers, and their increasing prevalence is welcome.

Neither of these two forms is a new departure, but both are much more common than they were a few years ago. Both alike make men think, and utter their thoughts—and those are the main ends which are served by the reading of papers at professional meetings.

## A COMPLICATED AND RARE FRACTURE.

*Subject.*—Chestnut Waler gelding, 5 years old, 15 hands 2 inches.

*History.*—Broke loose when coming in from exercise, and slipped up about twenty yards short of stable, whilst turning a corner. I saw the case the day after occurrence of accident.

*Symptoms.*—Considerable synovial effusion affecting near knee, and extending about five inches above and below knee. Position of knee displaced inwardly. Crepitation, and pain on digital manipulation of external surface of knee. No trace whatever of any abrasion of skin. Subject showed no signs of any distress or pain, although he was unable to put any appreciable weight upon the near fore leg.

*Post-mortem.*—Fracture of the following bones (near knee);—Magnum, os lunar, and scaphoid. Comminuted fracture of cuneiform bone. Fracture without displacement of internal portion of head of external small metacarpal bone.

H. ALLEN, Capt. A.V.C.  
Lyallpur, Punjab, India.

## REFLEX EPILEPSY CAUSED BY PULMONARY ECHINOCOCCOSIS.

Rudolf Gál, of Jászberény, records (*Allatorvosi Lapok*) the following case of an eight-year-old cow. She was brought to him with the history that she had been bought a week before, and every second or third day had fallen into convulsions.

On examination, Gál ascertained the existence, on the left side of the thorax and in the upper third of the eighth, ninth, and tenth intercostal spaces, of a dulness, above which no respiratory sounds could be heard. The temperature was 100.4 F., the pulse 46 per minute, and the respirations 26. After another ten days the condition of the cow became so much worse that it was deemed necessary to slaughter her.

Post-mortem, Gál found an echinococcus cyst as large as a man's head in the left lung. There were no morbid lesions in the heart or in the brain. Gál's view is that the massive pulmonary echinococcosis caused the epilepsy by occasionally compressing the heart and large blood-vessels, and so inducing cerebral anæmia. It must be admitted as possible, however, that an auto-intoxication originated from the contents of the echinococcus cyst, and that the toxin, reaching the brain with the blood stream, irritated the psycho-motor zone of the cerebral cortex.—(*Berliner Tier. Woch.*)

## ENTERO-VESICO-VAGINAL FISTULA IN A COW.

Leurink describes (*Veeartsenkundig mededelingen*) describes the following symptoms in a six-year-old cow during life. "The cow had been bulled about a month previously, after which she had remained lying down for several days. Later, the appetite diminished, and gradual emaciation set in. Defecation was irregular, the dung was alternately thin and dry, and was passed in small quantities, while, shortly before death, a black pulpy mass was discharged from the vagina.

The post-mortem examination, which was carried out by Smit, resulted as follows. The body was emaciated, and gave the impression of having been very anæmic during life. When the pelvic cavity was opened (which was done carefully) the rectum, vagina, bladder, and uterus were seen, with the wall of a large sac, which at first could not be drawn out. The serosa of the pelvic cavity was covered with faceted white-yellow strings of fibrin.

Inflammation or even hyperæmia of the serosa, on the other hand, could not be demonstrated; probably on account of the high degree of anæmia already mentioned. The facets upon the coagula had been caused by the pressure of the different coils of intestine, they were smooth and showed no flakes, but a homogenous structure. The process was limited to the pelvic cavity alone.

The lateral wall of the rectum was carefully divided with the scissors and spread out, showing the mucous membrane much wrinkled, and mucoid material contained within the rectum.

The vagina was then opened, and the incision carried through into both horns of the uterus. Both horns were normal, the os uteri was closed. In the vagina the hæmorrhagic swollen orifice of the urethra was noteworthy, projecting as a dark-red swelling from the vaginal mucous membrane. After splitting up the whole urethra the bladder was examined, and was found to be filled with a black-green pulp of alimentary material. At its base was a round opening the size of a florin, with smooth edges. The mucous membranes of the urethra and bladder were chronically inflamed, thickened, showing swellings and folds, and were beset with hæmorrhages.

When the previously mentioned large sac was pressed upon, more of the same pulpy alimentary material which was already in the bladder came through the opening from the sac. This opening was enlarged so as to permit a view of the interior of the sac, which appeared as a cavity the size of a cocoa-nut. Within it was lined by a croupous membrane about  $\frac{1}{2}$  inch thick, while externally the sac was wholly adherent to the serosa. Another passage existed from this sac into the colon. There was thus a direct communication between colon and bladder. The ureters were, and the kidneys were very hæmorrhagic. The renal parenchyma was beset with many small abscesses, and the renal pelvis was filled with yellow pus.

The following conclusions can be drawn from the post-mortem findings. At the time of coitus the bull's penis, instead of following its usual direction

towards the uterus, was deviated downwards and penetrated into the opening of the urethra. The bladder was thus pierced, and the glans penis was pushed into the closely adjacent coil of the colon. Through cicatrization of the serosa and through prolapse of the mucous membrane of the colon the cavity connecting colon and bladder was formed and the entero-vesico-vaginal fistula established. From the bladder, which became inflamed from its unaccustomed contents, infective material passed to the kidneys and there set up pyelo-nephritis. The bladder slowly became filled with alimentary matter, thereby causing the partial suspension of rectal defecation, while it was not until later that alimenter was discharged through the urethra.—(*Berliner Tier. Woch.*)

## PYEMIA AS A SEQUEL TO PHLEBOTOMY IN A COW.

Wyssmann records (*Schweizer Archiv.*) the case of a Simmenthal cow, six years old, which had not conceived for a year, despite medical treatment. The owner decided to bleed her, and abstracted ten litres (about  $17\frac{1}{2}$  pints) of blood. Three weeks after the bleeding, she was yoked to a cart and completely exhausted by very hard work upon a difficult road.

Wyssmann saw her a fortnight later (nothing is stated of her history during the intervening period—*Transl.*). He found her with her back arched; the forelimbs were in the normal position, while the hind ones were brought forwards underneath the body. These symptoms became more apparent when the animal walked. An examination of the hoofs revealed nothing abnormal. The rectal temperature was  $102^{\circ}$  F.; the respirations were slightly accelerated, and the pulse was 84 to 88 per minute.

Upon the left side of the neck, at the place where the cow had been bled, was a rather sensitive swelling the size of a walnut, the centre of which showed the opening of a fistulous channel about 4-5th inch long and wide enough to permit the passage of an ordinary probe. Pressure upon the swelling caused the discharge of a certain quantity of pus.

Wyssmann injected a very strong solution (50 per cent.) of carbolic acid into the opening, and advised painting with tincture of iodine. Apart from the swollen point, there was no thrombosis of the jugular vein. Wyssmann did not suppose that there was any connection between the phlebitis and the other symptoms he observed, and regarded the case as "rheumatismal," caused by a chill after the hard journey previously mentioned.

Amelioration soon appeared, but it was of short duration. Although the appetite was preserved, the cow wasted. The rectal temperature often exceeded  $102.2^{\circ}$  F. The swelling of the jugular vein augmented, and finally developed into an abscess. Soon the cow lay down and refused all food, and the breathing became very embarrassed. She was then slaughtered.

Post-mortem, it was found that the left jugular vein was obliterated by a reddish-grey thrombus the size of an apple. The left pulmonary lobe

showed a great number of purulent centres, varying in size and containing liquid greyish-yellow pus. There was also a considerable bronchitis and a slight recent military tuberculosis, with engorgement of the bronchial glands.

About the anterior third of the sternum there was a necrotic centre the size of a large apple, and filled with pus. Finally, Wyssmann observed a purulent arthritis of the fourth sterno-costal articulations both on the right and left side. The muscles and the peristernal connective tissue were infiltrated with yellowish serosity, while the skin covering the region was absolutely normal.

Prof. Guillebeau made a bacteriological examination of the lesions; and discovered streptococci, coli bacilli, and the bacilli of necrosis in the thrombus. The pus of the pulmonary and sternal lesions contained same germs.—(*Annales de Méd. Vét.*)

W. R. C.

#### THE AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

For the first time in the history of the Association a veterinary sub-section has been formed, and during the session in Melbourne from Jan. 7 to 14 was well attended by veterinary surgeons from several of the States, while others from New Zealand and the more distant parts of the Commonwealth, contributed papers. The President was Prof. Douglas Stewart of the Sydney University Veterinary College, while the secretarial duties were admirably carried out by Dr. Stapley and Mr. Robertson of Melbourne.

Among the papers read were one by the President on "The Veterinary Profession in Australia," one by Dr. Tyson Kendall on "The History of the Veterinary Profession in Victoria"; by Dr. S. Dodd, "Anaplasma or Jelly Bodies"; by Mr. Kendall, "Actinomycosis of the Cow's Udder"; by Dr. Stapley "Heredity"; by Mr. F. E. Place, "Diet Deficiency and Disease."

The Victorian members entertained the visiting members to a *recherché* dinner and the theatre.

Opportunities occurred for the members to hear papers of interest in other sections.

#### YORKSHIRE VETERINARY MEDICAL SOCIETY.

The Annual Meeting was held at the Hotel Metropole, Leeds, on Friday afternoon, January 31st. The President, Mr. J. Abson (Sheffield) presided, and amongst those present were Messrs. G. E. Bowman, H. G. Bowes, G. C. Barber, F. W. Clough, W. Crawford, P. Deighton, H. Dyson, F. Hallilay, J. A. Hodgman, J. W. Lazenby, J. McKinna, M. Robinson, S. E. Sampson, J. S. Woodrow, A. McCarmick (Hon. Treas.), J. Clarkson (Hon. Sec.) and many visitors.

Mr. ROBINSON moved, and Mr. Dyson seconded the adoption of the previous Minutes as recorded in a previous issue of *The Veterinary Record*. This was agreed to.

#### ROYAL SANITARY INSTITUTE CONGRESS.

The SECRETARY alluded to a letter received from the R.S.I. For many years past the Yorkshire Veterinary Society had not joined the Royal Sanitary Institute, and their Council were still of the opinion that it would be wise to refrain from joining. The Yorkshire Society, along with many others, were anxious that the Royal

Institute of Public Health and the Royal Sanitary Institute should amalgamate. Then the Yorkshire Society would doubtless take an interest in the matter.

#### NOMINATION AND ELECTIONS.

The President nominated his nephew, Mr. PERCY ABSON, of Doncaster, for membership in the Society.

Mr. C. PITTS (Bradford) and Mr. H. W. SOUTHALL (Driffield) were elected members of the Society, on the proposition of Mr. McCarmick, seconded by Mr. Dyson.

#### ELECTION OF COUNCIL OF R.C.V.S.

Mr. CLARKSON said the Yorkshire Council had nominated Mr. McKinna as a candidate for the Council of the R.C.V.S. Mr. McKinna was, he was glad to say, willing to stand.

Mr. ROBINSON moved, Mr. Woodrow seconded "That the action of our Council be endorsed." This was agreed to.

#### INTERNATIONAL CONGRESS, 1914.

On the invitation of the President, Mr. GARNETT spoke on the subject of the International Congress. He said the members present knew the International Congress was to be held in July or August, 1914, and that this country would have the pleasure of entertaining the International delegates for the first time. The Congress was a Government matter, the Foreign Office sent out the invitations, and the Veterinary profession had the pleasure of finding the money. The minimum amount required would be about £3,500 and towards that sum he had received promises for £2,600, and when they considered that three or four of their greatest societies had not yet forwarded their List of Subscriptions, he, Mr. Garnett, thought there were good hopes of securing the amount aimed at. In cases where members of the Profession belonged to more than one Society, if it was desired, subscriptions could be allocated to the various Societies' List. He trusted all members of the profession would subscribe as liberally as they could, because the International Congress was undoubtedly one of the greatest and most important things that the profession had ever undertaken. The Yorkshire Society, as a Society, had voted 15 guineas and some of the members had also liberally subscribed.

The PRESIDENT said he did not think he was divulging any secret when he said that though the Profession was some 3,000 strong yet up to the present only 170 members had subscribed. He hoped those who had not subscribed would do so. The committee would welcome any addition to their funds.

#### REPORT OF COUNCIL ON MR. BOWES' RESOLUTION.

The SECRETARY said the members would recall that at the last meeting Mr. Bowes had a resolution on the Agenda to the following effect:—

"That in the opinion of the Yorkshire Veterinary Medical Society the time has arrived when Government should take steps to control the use and prevent the abuse of tuberculin."

That resolution was discussed at the meeting, and it was decided to leave the matter in the hands of the Council for further discussion, and to decide what was the best thing to do in the matter. The Council had since discussed the Resolution and had come to the conclusion that the best method would be to circularise the other Societies and ask them to join hands with the Yorkshire Association, if they agreed with the Resolution, and to ask the newly formed "National" Society to deal with the matter. It had since their last meeting been suggested that in addition to control in the ordinary way some steps should be taken for the standardisation of Tuberculin. He asked for the confirmation of the Resolution, or suggestions as to any better dealing with the matter.

Mr. CLOUGH proposed that the recommendation of the Council should be accepted, together with the inclusion of the standardisation of tuberculin.

Mr. BOWMAN, in seconding, thought if they could get a definite standard it would be extremely beneficial.

#### PRESIDENTIAL ADDRESS.

By Mr. J. ABSON, F.R.C.V.S., Sheffield.

My first duty is to express to you my deep sense of gratitude for the honour you have paid me by electing me your President. The honour was quite unexpected, and I frankly admit that so far as my attendance at your meetings went, was equally undeserved. I shall endeavour during my year of office to uphold the dignity of the position, and hand down its best traditions unimpaired. In this, I recognise that I shall have the wholehearted support of the Secretary and the Council.

It is customary on these occasions for the President to review in his address the present and future prospects of the profession. It is not my intention to do more than refer in a passing manner to one or two matters which I think call for remark. But firstly, I would like to remind you that this year is the 50th anniversary of your Society, and I think I am right in stating that there are only two other societies which can claim the distinction of being older.

Half a century is a long time to look back upon, and still we have with us, but unfortunately not present here to-day, one of the original founders of this Society—still hale and hearty, his four-score years sitting lightly upon him—I refer to Mr. Pratt, of Ripon, who recently so magnanimously presented the Society with his very valuable collection of ancient and modern horse shoes, which it has been one of his hobbies to collect and preserve. I am sure you will agree with me in expressing regret that he is not amongst us to-day on this 50th anniversary of an institution he helped to found. It was hoped he would be your President this year, but the exigencies of advanced years and a fear that he might not be able to regularly attend the duties appertaining to the presidency precluded him from accepting it.

Of the other founders I may mention the names of Messrs. E. C. Dray, J. Cuthbert, W. Broughton and J. Mitchell, Leeds; J. S. Carter, W. Williams (afterwards Principal Williams) Bradford; Fryer, Fleetham; Bale, Otley; Lord, Halifax; Anderton, Skipton; Secker, Knaresborough; and Horner, Morton.

I am indebted to our esteemed colleague, Mr. Pratt for the following notes regarding the inception of the Society which I think, under any circumstances, may interest you, and which I give in his own words:

"In the year 1861 whilst I was reading my *Veterinarian* I was very pleased to find that here and such institutions were springing up, and the idea struck me at once, that the establishment of a Veterinary Medical Society in Leeds or Bradford would be a very great boon to the veterinary surgeons throughout Yorkshire.

I resolved forthwith to write to my old friend, Mr. W. Williams (Bradford), and enquire if he could try and undertake the matter. Shortly after I got a very kind reply from him, saying for certain reasons (which he stated) he could not do so, but if such a society was formed he would join it. I was in practice at Masham at that time, a small country town, quite out of the way, and therefore I could not undertake it. I afterwards went over to see Mr. Williams, also wrote him several letters, but could not apparently move him.

However, in October, 1863, I received notice of a meeting to be held on the 9th of that month in the Queen's Hotel, Leeds. I speak from memory when I say the notice, or circular, was signed in the names of W. Williams, and J. S. Carter, Bradford, and J. Cuthbert, Leeds. The preliminary meeting was held on

Oct. 9th, 1863, in Leeds. Rules were passed for the government of the Society and its officers elected, the President being E. C. Dray; Treasurer, R. C. Lord; and Secretary, W. Williams. The annual meeting was held on Jan. 29th following, at the Queen's Hotel, when 18 members were present. The President gave his inaugural address.

I have had the pleasure of reading this address of Mr. Dray's, and I can assure you it is an address of a very high order, written by a highly educated and thinking man, and in tone, matter and manner is one of the best addresses I have ever read. Had time permitted I should have liked on this occasion to have read this address of 50 years ago to you, when you would have had an intellectual treat.

I would like here to refer to the value of such societies as these, first, from a social aspect. One meets his brother practitioner; a spirit of good comradeship is engendered; we become more broadminded. Old sores are often healed, and a lasting friendship cemented. In addition, a member is able to consult with his fellows on some grievance with a client—he may be threatened with an action-at-law—and goes home feeling all the better for the advice received and support offered.

Such Societies help us to realise and act up to the motto of the profession *Vis unita fortior*, and our meetings stimulate the conscience of the body corporate, so that we take a higher view of our duty to our neighbours after friendly intercourse with them.

The other aspect is the professional. Who does not go home from a meeting after a good paper has been read and discussed with a feeling of satisfaction that he has learnt a good deal that may be most useful to him, and that "he did not know everything after all?"

The greatest value, however, to those who are engaged in general practice, lies in the opportunity for the hearing and discussing of clinical cases. It is not the extraordinary rare case which helps most, but a new way of doing an everyday thing—a comparing of notes—a pooling of the individual experiences. These are what we want, and these will make our meetings popular and helpful.

I am hopeful that the consolidation of all the societies with the "National" will make for general advancement—socially and scientifically—and for power.

We have not used our collective power much in the past as a profession. Let us make the "National" a powerful organ of the profession—informing the public, protecting our legitimate interests and advancing veterinary science.

The "National" is receiving our capitation fees. We shall look forward to the development of its programme with interest. Among other suggestions was one for joint meetings of two or more local societies to hear a special lecture, or see a demonstration from some expert authority. We shall hope to take part in some of these meetings when the scheme is in working order.

Some of our members are affected more or less by the new Mines Act, and in so far as it deals with the inspection of ponies in pits it is a wise measure—if properly carried out, and should mitigate the evils of overwork and other forms of cruelty where such exist. The special knowledge of Veterinary Surgeons is certainly needed to ensure this.

The projected Anæsthetics Bill requires amendment. None of us will deny that long and painful operations should be performed under an anæsthetic, nor do I think any of my hearers would be guilty of performing such operations without its use. On the other hand, I think there are several operations mentioned in the Bill which ought to be left out, unless fatal results are to be common. Then, too, the profession must be consulted about a matter so seriously impugning their humanity and self-respect. With considerable amendment, and a better

knowledge of what is required than is evident in this Bill, such a measure might do good.

The Bill.—The Veterinary Surgeons Act Amendment Bill, now waiting the pleasure of the House of Commons, is really a Money Bill. The exigencies of our finances are solely responsible for it, and no other course was open to the Royal College. Our duty to the profession requires us to look after the education of students, the defence of our professional privileges, and the proper discipline of our graduates. These things cost money, and without an assured income it is impossible for these duties to be carried out by the Council.

Meantime our funds are diminishing at such a rate that unless the Bill becomes law it is probable that our College buildings in Red Lion Square may have to be mortgaged.

A few words with regard to the future of the profession. The good times for the general practitioner are fast on the wane. Motor traction has come to stay, and that with a vengeance. As yet we are only touching the hem of the garment, metaphorically speaking. Some writers appear to regard the decay of the "Commercial" Veterinary Surgeon, as he is sometimes termed, with pride and pleasure, and hold out most glorious prospects for the highly scientific man who is to succeed him. The rank and file of the profession do not share this view. They view with apprehension the loss of practice which the advent of the motor—both light and heavy—has already entailed, especially in the metropolis, and which is now being felt—although in a lesser degree—in our large towns.

But there are some compensations. Public Health appointments are increasing daily, and good work is being done by the officers appointed. The new Milk Bill, if it ever passes, will call for a good deal of veterinary work. Our need of systematised Meat inspection is becoming more and more evident to an educated public and must be dealt with shortly. It is to be regretted that the remuneration is not commensurate with the services rendered; the conditions of service also require drastic reform, so that the professional status may be made more satisfactory of Veterinary Health Officers.

Preventive medicine has a great future before it, and this should be fostered by the Government by providing proper facilities whereby research work may be conducted and the funds to pay for it provided. It should not be left to private enterprise to carry out work of a national character.

Sir Stewart Stockman's projected new Laboratory is a beginning, and we must see that suitable veterinary surgeons are given opportunities for laboratory research work, and here I am sure you will all join with me in tendering to Sir Stewart Stockman our hearty congratulations on the well-deserved honour which has been conferred upon him.

No body of men has done so much for the great agricultural interests of this country as the profession to which we belong. In this we have shown a patriotism of which we may well feel proud. Self-interest has never entered our thoughts. Scourges which have cost the nation millions a year have been swept away. Foot-and-mouth disease is an example, and the Board of Agriculture Veterinary Service is to be congratulated on their promptitude, and courage in dealing with the recent outbreak. Has the nation shown any gratitude to our profession for these vast services to it? What form has the recognition taken?

But we must continue to make it quite evident to the public that we are fit and willing to do these services. We have hidden our light too much, hence our want of recognition as compared with our continental *confrères*. Veterinary Colleges in this country are left to work out their own salvation, in other countries they are state-aided.

Next year the International Veterinary Congress meets in this country for the first time. It will be the most important meeting of veterinary surgeons ever held within these shores: visitors from all parts of the world will be present. Here again the State does not come to our aid to help us to receive and entertain these good people. Such help is forthcoming in all other countries: we, as usual, have to provide the wherewithal to do this. Our national pride demands this. It will be a unique opportunity of enlightening the British public as to the value of veterinary services, and it rests with us to see that it does not lack in any respect. May I here appeal to all those who have not already subscribed to the fund to do so without delay, as the Committee are desirous of knowing exactly where they stand with regard to finance. The Treasurer is still far short of the amount he requires, and I hope those to whom this appeal is made will forgive me if I ask them to be as generous as possible.

I must not trespass upon your time any longer: the discussion on Prof. Ainsworth Wilson's paper is to follow my address: it is a paper of a very high order on a subject which I venture to say has not occupied the attention at the hands of the profession which it obviously deserved. Prof. Wilson has kindly come all the way from Edinburgh to reply to the discussion.

In conclusion, gentlemen, I appeal to you to be regular in your attendance at our meetings, and to give your individual help to make the year a successful one to all concerned.

Mr. Bowes proposed a vote of thanks to Mr. Abson for the excellent and pithy address he had given them. It was not their custom to discuss presidential addresses, though Mr. Abson's address afforded plenty of food for discussion. They were, however, all pretty well agreed on the points made in the address, and certainly it had proved very interesting.

Mr. McKINNA in seconding the address, said they were echoing no empty sentiment when they placed on record their appreciation of its value. [The resolution was passed unanimously].

#### STERILITY IN THE MARE AND COW.

By Professor AINSWORTH WILSON.—DISCUSSION.

Mr. Bowes felt that the paper was a little out of his province. There was no doubt that Prof. Wilson had opened their eyes to a good deal in connection with sterility in the mare and cow. In town work one did not have much to do with breeding, and a town practitioner could not speak exactly as an authority on matters of this kind. He wished to ask Prof. Wilson as to how far sterility might be matter of accident, simply the plugging of the os uteri, possibly from plugging with mucus. It struck him that that would account for a great number of cases of sterility: and if that were so it would explain why so many cases were successful with artificial semination, because if the only cause of barrenness was occlusion of the os, artificial semination would get over the difficulty. He was very much interested to hear from Prof. Wilson that these diseases were so susceptible to treatment if one would devote a little time and care to them. By constant practice it appeared that one could do a great deal in breaking down these conditions of the ovaries by manipulation through the vagina. Possibly country practitioners would bear these matters in mind, in view of the loss of work through motor traction. They might be able to bring a little more grist to the mill by means of treating these cases. Prof. Wilson's paper had been very interesting, and he had little doubt that it would be exceedingly useful to country practitioners.

Mr. Bowman said he had known farmers put 8, 10, and even 12 mares to stallions, and invariably get only two or



three foals, and they came to the conclusion, and he, Mr. Bowman, thought it was the right conclusion, that the farmers had fed them on too dry keep—too much corn. If they went into a district where there were small farms, and the mares on them not so well kept as they were on large farms on the Wolds, and where the mares had to work hard, they would get a good majority of foals. He had a stallion of his own some four or five years ago, and had used him for the double purposes of "showing" and breeding, and he found it was a very difficult problem. If they were giving a stallion four or five feeds of corn a day along with beans to keep him fit for "showing," then they would have very few foals from him. Of course they met with mares that would not breed. He instanced a case of a valuable thoroughbred mare worth between £500 and £600. She was covered by two or three thoroughbred stallions for four or five years and never held. They put her to a young cart horse, and she bred a foal the first time.

Mr. DEIGHTON said his experience of stallions, especially cart stallions, was that as a rule they were put in boxes and made as fat as possible. When they began to travel they were no use for the first month or six weeks. They left very few foals indeed. They began to get into good hard condition when the season was over, and that was the time when they began to get foals.

Mr. McCARMICK considered with regard to mares it was a great mistake to over-feed them. As regarded the horse he thought you could not really overfeed him. The horse ought to be exercised regularly. The most successful horse was the one that was travelling, not standing, serving mares. The horse on the road was the most successful foal getter.

Mr. BOWMAN enquired whether Mr. McCarmick would feed a 'horse' regularly on hard corn.

Mr. McCARMICK: "Certainly, if the horse was going his round regularly. It was the very thing for him. If he was not so fed he would soon become poor. Of course there was proportion in everything."

Mr. SAMPSON had been unfortunate enough to own two stallions. During the two seasons he had them, he made a fair number of examinations, and found many of the things that Prof. Wilson has spoken of as the causes of sterility. Some mares had the os displaced, others had disease of the os. He was not able to make out any of the conditions of the ovaries. No doubt they did exist, but perhaps some of them had not gone far enough into the matter. He agreed with the remarks of Mr. Deighton—that the majority of men got a stallion beastly fat. If they would let them have a month's travelling without serving mares they would be doing the right thing.

The PRESIDENT: I quite agree.

Mr. SAMPSON: When on the road he did not think they could feed the stallion too well. A stallion serving ten or twelve mares a day needed some upholding. He had known a noted stallion who when he was on the road had up to 30 or 40 eggs a day in milk.

Mr. DEIGHTON alluded to a bull which had come under his notice. The bull seemed no good for serving, and the owner thought there was something wrong with the bull's organs. However, the bull was exercised and give a five miles walk every day. At the end of two months the bull began to serve cows, and was very successful.

The PRESIDENT: Too fat and idle?

Mr. DEIGHTON: Yes, and soft with it. No condition.

Mr. CLARKSON desired to add his mead of praise. To Prof. Wilson for his paper. It was worthy of the discussion of not only a local Society, but of being read at the "National." (Hear, hear.) With regard to one of Prof. Wilson's points—that poverty and overwork were relatively unimportant, he did not know whether he

agreed with the Professor. He thought they were very different. Poverty in the mare he sometimes thought rather counteracted sterility. One found the poor man's horse very often "held" and it sometimes meant the end of her. As regarded the horse he agreed that when doing its work it wanted feeding as well as possible. He had been much interested in some of the figures given by Prof. Wilson with regard to diseases of ovaries and uterus. He should have expected to find more nymphomania than was mentioned. Prof. Wilson had mentioned about twins being sterile. According to his (Mr. Clarkson's) experience that was correct, though he recalled one interesting case of his. There were twins, a colt and a filly, running together, with no thought of any breeding from them. But there was a foal when the filly was two years old.

There was one cause of sterility not mentioned by the Professor which he had often found in a neglected case of the retention of the fetal members. It was very common to find a few of the cotyledons come away with the cleansing in a neglected case. He had one case where every cotyledon came away; in that case he had a post-mortem, and he found there was not a single cotyledon left in the womb. There were cases where they got half-a-dozen if they examined the cleansing thoroughly. He thought that probably would be one of the causes of sterility in cattle. He confessed that Prof. Wilson had given them much food for thought in the success that was possible by surgical and mechanical treatment.

Mr. McCARMICK desired to ask Prof. Wilson if, where there was complete occlusion of the os, there was any likelihood of the stallion rupturing the bowel, because in one post mortem he attended there was a complete rupture of the rectum. Was that a coincidence, or would it be accounted for by the occlusion of the os.

Mr. CLOUGH said that when the 'yellow bodies' were pressed out they dropped into the cavity. Had the Professor found any abscess to cause septic poisoning? In the district he came from, if a cow did not hold the bull it was got ready for the butcher. It did not pay to spend the time over them, as it would if they were pedigree animals.

Mr. BOWES asked how many cases of apparent sterility were the result of early abortion? Were there not cases where cows did not hold because as a matter of fact they were abortive in the early stages—where contagious abortion existed on farms.

Mr. GARNETT said the subject of the Paper was one that had interested him for many years, especially with regard to cattle. There were a great number of cases where sterility existed in a breeding herd, and where they were a shorthorn breeding herd the owner would give anything to get a calf from a favourite pedigree cow. In such cases time and trouble did not count. Professor Wilson's paper was the best paper he had ever read on the subject. (Hear, hear.) He (the speaker) had examined ovaries in cows and found variation in size. He had never attempted manipulatory treatment such as Professor Wilson had described. He had always given up the cases as absolutely hopeless. There were many cases where sterility in cows was undoubtedly due to the occlusion of the os. In these cases, provided there was no difference in the size of the ovaries, by opening it and using the inseminator very frequently most successful results followed. The use of the inseminator in cattle was not nearly so easy as in the case of mares. The getting up of the seminal fluid was much more difficult. It was much more difficult to get the nozzle through the os. With regard to sterility following the service of stallions, many people were of the opinion that if a horse served two or three mares the mares were far more likely to hold from the later jumps in the day than the first ones. It would be very interesting to take the views of stallion owners on these



matters. He was convinced that there was something in the theory, and he thought it was capable of explanation. He alluded to a curious instance where a premium stallion would never jump a maiden. All the maidens he was offered he refused to jump, otherwise he was a good foal getter. With regard to cattle, what became of the fluid that was evacuated from the ovaries? He anticipated that only a very small proportion would get into the tubes.

The PRESIDENT agreed that the Paper by Professor Wilson was worthy of a far greater discussion than they, as a Local Society, had time to give it. The difference of the size in the ovaries of mare and cow was rather a surprise to him. The ovary of the mare was the size of a duck's egg, whilst that of the cow was the size of a hazel nut or walnut. It was rather strange there should be so great a difference. There might be a reason for it. The cow's ovaries could be grasped per vaginam and drawn back into the pelvis. Where did the elasticity come in? The mare's ovaries could not be so manipulated, and could not be drawn back.

Prof. Ainsworth Wilson had told them that the mare and cow, stallion and bull were rarely sterile when kept under natural conditions, living out in the open. They, as practitioners, all endorsed that. It was the unnatural conditions in which animals lived that made them sterile. The instant they began to depart from nature they were going to have some deviation in the result of the mating of the two animals. Personally, he should advocate that all stallions during the winter months should be allowed the full run of a large crew yard. Let them have exercise and not want to pile loose flabby fat on them. There could be no argument in favour of fat. A stallion living under natural conditions was a better stock getter than animals fastened up in a loose box with hardly room to turn round. The mare that was pampered got fat and flabby too. She did not hold to the horse as she would do if she was running out and leading a natural existence. His opinion was that mares in a poor condition were far more likely to hold than mares that were overfed. Prof. Wilson had said that travelling stallions with reputations had usually too many mares to serve. He thought they would all agree with that. They were worked to death. There should be some limitation to the tax on a horse's powers of serving. It was not an unusual thing for a stallion which was much sought after to have 150 or 160 mares a season to serve, and goodness know how many times the stallion had to jump some mares. It was taxing nature too much, and there was no wonder that there were such a lot of barren mares left in the country. Prof. Wilson said that spaying was successful in restoring fertility. He presumed unilateral spaying was meant there.

Prof. WILSON: Quite.

The PRESIDENT said an American farmer had told him that in cases of non-fertility he had found it useful to wash out the vagina of the mare with a solution of common washing soda a quarter of an hour before the mare was served, and that this had proved very effectual in getting the mare to hold. There seemed to be an extraordinary degree of catarrh of the generative organs of the mare. It would be interesting to know how these cases of catarrh arose. He personally had not found the ovaries when examining mares quite as easily as Prof. Wilson stated, and he thought he should hesitate a long time before attempting to squeeze out the yellow body.

Prof. WILSON, who was received with hearty applause, thanked the members for the good discussion which had taken place. Mr. Bowes had asked how far sterility might be a question of accident, for example the occlusion of the os with mucus or from some other cause. He would scarcely call it an accident. A closed os at oestral periods was due to some disease. He agreed that the success of artificial insemination depended on the

lesion being situated in the cervix or vagina—some lesion, functional or organic, which prevented the semen entering the uterus. As to how many apparent cases of sterility were due to contagious abortion, he confessed that was a very pertinent question, and he was unable to answer it. He had already stated that a mare frequently slipped her foal, and it was extremely difficult to know if abortion had taken place without anything being noticed. It was quite a common thing in breeding studs for the mare to show no oestrus after service. The mare was tried over and over again without result, but about the ninth week or very often from the 6th to the 12th week she came again into use. In his opinion the great majority of those mares had aborted, and they had aborted at grass, and the abortion was so small they could put it in the hollow of their hand. It was extremely difficult to be absolutely certain of it, but everything pointed to the fact that abortion had taken place. One reason for his saying this was that they very seldom held to the first service. Afterwards in fact it was difficult to get them in foal the same season, and he had generally found where they had held at stud several services were necessary. This he regarded as due to some catarrhal condition of the genital passage for which the earlier abortion was responsible.

With regards to the evils of overfeeding they were unanimous.

Mr. BOWMAN had mentioned an instance where a change of stallions was successful. Most of them could give instances of that description, but he noticed one rather significant thing about the statement that in this case the stallion was changed from a thoroughbred to a cart horse. The reverse he thought was more often the case, at any rate in his experience. He had found that a change to a thoroughbred was more likely to be successful.

Over-feeding had been mentioned, they were unanimous with regard to the evils attending this practice. In this connection he might make one statement—that although the Paper did not deal with bitches, yet it was extremely well known among breeders that infertility existed among fat bitches. The "Show Bench" of course was a determining factor. It tended to lessen fertility, just as it did in the case of larger animals. The success of exercise in the case of bulls had been mentioned. The experiment was tried with considerable success in Essex. Bulls were trained to work, and certainly they got more calves.

There was a little difference of opinion with regard to the possibility of overfeeding a stallion on the road. After all it was a matter of common sense. He agreed with the majority of speakers that, within limits, they could not overfeed a stallion. If the stallion was serving 80 to 100 mares, and was on the road he needed generous feeding with proteids.

Mr. Sampson referred to the disordered condition of the os as being a frequent cause of sterility. That point had been brought out in the Paper. He thought Mr. Clarkson had rather misunderstood him with regard to poverty and overwork. In discussing causes he had said "Poverty and overwork are relatively unimportant, they act by lowering the vital powers, whereas over-fattening induces sluggishness and sometimes absence of oestrus." Mr. Clarkson agreed with him because the experience of Mr. Clarkson was that poverty often counteracted sterility in mares.

Mr. CLARKSON: I agree with that. I did not read it that way.

Prof. WILSON referring to the fact that in the 130 cases of sterility he had quoted only 18 per cent. showed nymphomania, confessed that it seemed a very small percentage, but said careful records were kept for a number of years, and the figures were strictly correct. He was of opinion that nymphomania was not nearly so common as one might suppose. Of course it depended

on the definition of nymphomania. If nymphomania was excess of sexual desire manifested in some marked manner, then he did not think it was very common.

Retention of the afterbirth had been mentioned as a common cause of sterility. With regard to sloughing of the cotyledons, he had had a number of cases, but unlike those mentioned by Mr. Clarkson they had not usually led to sterility. These were cases he had had under control on abortion isolation farms, where he was able to carry out proper measures. The cotyledons had grown again, and the animals became pregnant. He mentioned this to show that necrosis of every cotyledon did not necessarily mean sterility. It was quite common to have a certain number of them come away in neglected cases.

Questions had been asked as to the fate of "yellow bodies" when pressed out of the ovary, also the fate of fluid which was squeezed out of the cysts. The "yellow body" certainly did no harm in cows. It was rather curious when one was operating on cows to note they could pull the "yellow body" right back to the vulva. It was in a closed cavity, and no air or organisms gained access. Fluid was readily absorbed by the peritoneum, and hence no harm resulted.

He was sorry to have to disagree with the remark that sterility in cows was largely due to occlusion of the os. In his opinion occlusion of the os in cows was not nearly so common as was generally supposed. The os was naturally closed. They could only get their finger in, sometimes only the tip of the finger during oestrus, and he did not think it was at all a common cause of sterility.

Reference had been made to insemination in cows. He remembered in some herds that before he took charge, insemination was regularly and carefully carried out by skilled laymen, and the results were very unsatisfactory. He continued the work for a time, though with considerable scepticism because, to tell the truth, he did not believe in it, or rather he believed it was very often attempted in unsuitable cases, and sterility was due to other causes. He carried out the treatment, and found that in certain cases it was impossible to introduce the inseminator into the uterus. It might be that the cow was not properly in season. He found it was a natural thing in a number of cases to get very slight dilation of the canal.

With regard to the question of stallions serving several mares consecutively on the same day, he had examined the semen of bulls under these conditions, and he found that the more numerous the copulations the less fertile was the semen. The semen was very thin and watery, it was prostatic fluid, nothing else. Microscopically examined, few spermatozoa were present and they did not seem at all lively. It was very deficient in quantity and quality. Reasoning from that he should say the same thing would hold good in stallions, but he could not speak from experience, but with valuable stallions in good studs it was not the practice to serve a number of mares on the same day. A stallion in good condition could easily serve three or four mares. He was, of course, aware that horses which were travelling covered a number of mares, but there was a considerable interval in the services as the stallion was going from farm to farm. At the same time he should say the last mares served were less likely to prove in foal than the first one. He had known one case where a stallion would never jump a maiden. He had instances where a virgin mare would not take a horse. That was more common. They seemed to be shy about the matter. In such cases it was a good plan to turn them out with brood mares, and tease them with a horse, and they very soon came to it. It was a matter of temperament, or getting used to the thing.

With regard to the comparative size of the ovaries in the mare and cow, like the testicle, the size varied in

different individuals and at different ages. He had found the average size of the mare's ovary to be rather larger than a duck's egg. The right was nearly always larger than the left. It seemed more active and on the whole more subject to disease. They varied in health, and in disease they varied a good deal. The ovaries and the uterus in cows were situated near the brim of the pelvis. They were attached very loosely by the broad ligament, and it was very easy to draw them back with the hand into the pelvis on that account. In mares, on the other hand, the attachment of the ovary was much firmer. The organ was situated much higher up and further forward. One could not draw it back many inches—certainly not into the pelvis, for the reason that it could not be grasped from the vagina. He gave it as his opinion that it was not safe to practise crushing operations from the rectum.

The President had emphasised the evils of pampering. That they all agreed with. He instanced a case in the South where the custom was to turn out the in-foal mares all the winter, with the result that they bore harder stock, and sterility was less common than in some studs where the mares were kept, so to speak, in glass cases, and pampered in every way.

Reference had been made to the remarkable sympathy which existed between the different parts of the generative organs. It was a curious fact, perhaps difficult of explanation but nevertheless a fact. The nervous supply of the organs was highly developed and lesions in one part often extended to another, either by direct continuity of the mucous membrane by the lymphatics, and occasionally—he admitted very occasionally—infection might proceed from the peritoneum, usually it was the other way. It was a curious thing that in certain mares troubled with nymphomania, when one examined the ovaries they were sometimes both of them small and apparently atrophied—one more than the other. One may be removed in these cases, the small one, and success sometimes resulted, the nymphomania disappeared and the mare proved pregnant.

With regard to the washing out of the vagina with soda half an hour before service, that corroborated his own experience. It was quite a routine procedure, could do no harm, and might do good, and was much more likely to do good if there was acidity of the mucus.

As to how the cases of catarrh arose, well, they had their origin in one or other of the causes of sterility. There was frequently no pathological lesion present—nothing to see at post mortem and yet there was an excess of mucus. The re-action was often acid, and the animal was infertile for the time being. Such cases frequently recovered spontaneously if the animal was allowed to lead a natural life—in the case of mares if they were turned out to grass, and in the case of cows if they were exercised. Some cases required treatment.

He admitted the ovaries were not always easily found especially in roomy mares. Even with practice one had difficulty sometimes. Anatomically they must remember that mares differed. The position of the ovaries varied to some extent, and considerably so in disease, especially if the ovary was enlarged, and had formed adhesions to other organs. Such cases required a considerable amount of handling, and the diagnosis must be very certain.

With regard to the herd of 950 animals in Essex to which he had referred, where the genital organs were weakened by generations of breeding on the basis of milk records, he desired to point out the sterility which prevailed amongst those animals, was due in his opinion to three causes: (1) They were bred from heavy milkers: (2) They were put to bull too early: (3) They were systematically prevented from breeding at a certain period of the year. They were not allowed to go to bull for three months.

He was interested to note that Mr. Walter Heape's experiments at Cambridge bore this out. Mr. Heape

had shown that this practice tended to lead to ultimate sterility.

One might say a good deal about artificial insemination. There were, of course, other indications for the use of the inseminator not mentioned in the paper which was already too long.

In conclusion, Prof. Wilson said he had been delighted to be present, and to have listened to such an interesting discussion. (App.)

Mr. McKINNA, in moving a vote of thanks to Professor Wilson, said that all the members who had taken part in the discussion had expressed in high terms their appreciation of Prof. Wilson's paper. He felt that such a paper as the one Prof. Wilson had delivered to them ought to be brought forward in such a society as the "National."

Mr. CRAWFORD seconded the vote of thanks. The field covered by the Professor was a large one, and it would be some time before the subject was efficiently mastered. They were much indebted to the Professor for bringing the matter before them.

The resolution was carried unanimously, and Prof. Wilson briefly replied.

#### MILK AND DAIRIES BILL.

Mr. DIXON desired to introduce to the notice of the Society the question of the Milk and Dairies Bill. He wished to know if the Council of the Yorkshire Society had given any consideration to the Bill. He was perfectly well aware the governing body of their profession had considered the Bill, and that they had passed a resolution to the effect that it needed no further amending. This was not the first occasion on which the Council of the Royal College of Veterinary Surgeons had distinctly missed an opportunity of securing the welfare of many members of the profession. In spite of the Council's disregard of this important Bill, it was the duty of the "National" Association to do something to better the status of those veterinary surgeons who anticipated being employed under the terms of the Act. The Bill had two outstanding features of interest to veterinary surgeons beyond its object; one feature was the absolutely servile position in which the veterinary surgeon was placed to the Medical Officer of Health, and the other feature was the omnipotence of the Local Government Board as compared to the Board of Agriculture. He had had the privilege of seeing some of the amendments drafted by the Central Chamber of Agriculture. They had inserted amendments solely with the object of guarding the country from the efforts of the Local Government Board without any restraining influence from the Board of Agriculture—the Government department which did know something and had some control and knowledge of animal life. To those of them in the profession who were acquainted with the personnel of the Local Government Board and some of their methods, it was alarming that that Board should be allowed to enact regulations for cowsheds and put them into force, not by agreement with the Board of Agriculture, but merely after consultation with the Board of Agriculture. The Local Government Board was nothing but a medical establishment; it was run by medical faddists; that was why they were there. Under the Bill the Local Government Board could draft regulations dealing with cows, their daily treatment, etc., and submit them to the Board of Agriculture which was a Board of experts on animal life, and in spite of any remonstrance or suggestion from these animal experts the Local Government Board could snap their fingers and put the regulations into operation.

It seemed to him a very important matter, and he suggested that their Society should ask the Central Council to consider the matter seriously. If the Bill was passed it would be many years before it could be

amended. Before the Bill became an Act it ought to receive the serious consideration of the veterinary profession, and the Yorkshire Society now moved in the matter, in days to come they would be proud to know that they had initiated a movement for the improvement of the Milk and Dairies Bill with regard to the status of the profession. The veterinary surgeon was not in his right place in this Act. If the Bill passed, the veterinary surgeon would be nothing but a "run about" for the medical man. The man who would do the work would barely get a living wage, whilst the Medical Officer of Health sat in the office and drew the *kudos*, which in public work meant also drawing the cash. At the invitation of the President he moved: "That the Council of the Yorkshire Veterinary Medical Society do consider the Milk and Dairies Bill now before Parliament with regard to the status of veterinary officers employed under its terms, and suggest amendments if necessary therein."

Mr. ELLISON: I have very great pleasure in seconding that resolution.

The PRESIDENT: It is a very good motion, Mr. Dixon.

On the proposition of Mr. Clarkson, seconded by Mr. Clough, a vote of thanks was passed to the Chairman for presiding.

#### ANNUAL DINNER.

The annual dinner was held at the Hotel Metropole, Leeds, on Friday, January 31st, the President, Mr. J. Abson, Sheffield, in the Chair. Amongst those present were Alderman J. Clark, Major Mason, Professor Ainsworth Wilson, Dr. Dennison, Messrs. J. H. Carter, F. W. Garnett, W. Woods, J. W. Brittlebank, H. G. Bowes, J. McKinna, W. Crawford, J. S. Woodrow, P. Deighton, M. Robinson, J. A. Hodgman, G. E. Bowman, J. A. Dixon, F. Hallilay, F. W. Clough, S. E. Sampson, S. Wharam, W. Hamilton, J. S. Lloyd, A. Ellison, P. Abson, J. Clarkson (hon. sec.), A. McCarmick (hon. treas.) and others.

The Royal Toasts were proposed by the President.

Mr. J. S. LLOYD gave the toast of "The Imperial Forces." He said there was no doubt the veterinary profession played a very active part in regard to the Regular Army, and also in the Territorial Forces. He alluded with pride to his acquaintance with Col. John Moore, now Principal Veterinary Officer in Ireland, when he was a student at the Williams' College. Opinions differed as to the efficiency of the Army, but now that Col. Seely had been appointed Minister of War, there was little doubt but that the Army would be brought to a high degree of excellence.

Major MASON said that to him had fallen the honour of replying to the toast of "The Imperial Forces" for something like thirty years at Leeds, Manchester, London, and other places. The Imperial Forces meant a good deal to Great Britain and her Colonies. Britain's Navy was her first line of defence, and now that her Colonies were coming forward and offering well equipped ironclads to the Mother Country they need have no fear with regard to the Navy. He (Major Mason) belonged to the Territorial Force. It was, he considered, a disgrace to the Army Council that the Territorial Forces were not properly equipped. The practical point concerning them, as members of the veterinary profession, however, was the horsing and manning of the guns, and the horses of the cavalry. He spoke in the presence of several gentlemen who lived in breeding districts, and he asked them seriously "Was breeding declining, and professionally were their services dwindling in that particular direction?" He drew their attention to a newspaper extract in which it was asserted that "the diminishing number of Army horses in England was becoming more and more alarming each year, and was likely to be accelerated in the approaching breeding season." Speaking as an old soldier and an old Territorial Officer of some 25 years' standing, he could see

that since the Territorial scheme came into force there had been a gradual diminution in the type of horse that was required. (Hear, hear.) They could get the "weedy" horses no doubt, but his experience was that people who formerly kept seven stallions now kept five, those who had owned five now owned three, and so on. People were not going to keep stallions unless they got something in return. If the stallions were not wanted, what about the mares? Where was the class of horse of the old 'bus stamp that everyone had been so proud of? Gone. This breeding question was a serious matter for the country. It was all very well putting beautiful statistics before them as to registration of horses etc., and the allowances for the same, but in many places suitable horses for the Army could not be found. In conclusion, Major Mason thanked Mr. Lloyd for coupling his name with the toast.

Mr. J. W. BRITTLEBANK proposed "The Examiners R.C.V.S." He said there was no post which a member of their profession should be prouder to occupy than that of an examiner. Those who had been taking a deep interest in the profession in recent years must have thought very seriously of the position in which their examiners were placed. To a very large extent the responsibility for the class of men who passed out into the profession rested upon the Examiner. The Examiner had to exercise a remarkable degree of discretion in awarding his marks and determining as to whether a candidate should be rejected, or passed on to practice the "art and science" of veterinary medicine. He (the speaker) believed the time had come when for the sake of both the examiners and the students from the various veterinary colleges, the examinations should be held at one centre. (Hear, hear.) That was, he thought, agreed by a very large number of people to-day. This would enable them to have an absolutely "clean" pass list. He did not use the word "clean" in any objectionable sense, but he meant a pass list which was not influenced by any of the surroundings in which examiners might be placed.

Alluding to Mr. Woods, and the position he occupied as an examiner, Mr. Brittlebank confessed that he much preferred to meet him at the festive board than he had done at the examination board when he (Mr. Brittlebank) was a candidate. Mr. Woods was an extremely kind and fair examiner. (Hear, hear.) Nobody relished examinations. He (Mr. Brittlebank) had been an examiner himself for the University of Liverpool for something like five years, and he knew examinations were never popular. Mr. Woods had in a most unusual manner preserved the great respect of the profession and his popularity for over twenty years. (Hear, hear.) It was a remarkable record of service to have sat as an examiner of the R.C.V.S. for so many years without a break, and it was fitting that opportunity should be taken to congratulate Mr. Woods upon his splendid services. He sincerely hoped that Mr. Bowes would complete a similar service, and he, the speaker, hoped to see it. Mr. Bowes looked very respectable now that he was an examiner. (Laughter.) The names of Messrs. Woods and Bowes were coupled with the toast.

Mr. W. WOODS, who was received with hearty applause, thanked Mr. Brittlebank for his kindly personal references. He (Mr. Woods) hoped he was not a man to be feared in examinations, and sincerely trusted he was not a bully. (Hear, hear.) He always felt an examiner ought to have the most generous feeling with regard to the candidate who sat opposite to him. The candidate was so entirely in his power. If the examiner insulted the candidate, the man was helpless. Consequently he thought an examiner should always bear in mind that perhaps one of the most unkindly things he could do was to sneer at a reply to a question, however foolish the reply might be. (Cheers.) At the present

time there were two subjects that were uppermost in the minds of the profession. The first matter perhaps was the question of the Finances of the Council, and he hoped that if it was possible for the profession at large to give any assistance to the Council by means of resolutions or any other methods to get their Act through—which was at present in a state of suspended animation—they they would take every possible opportunity of assisting the Council to get the Act passed, otherwise the Royal College was very soon going to be within a measureable distance of bankruptcy, and if that came about then the teaching of the profession would be undertaken almost entirely, or entirely, by the Universities who had money to lose. He did not say whether it would be a good thing or a bad thing for them to be attached to the Universities, but he just wanted to point this out, that if they became, as a body, attached to the Universities, their one portal system would go to the four winds of heaven. So that from that point of view the finances of the College needed their most serious consideration.

Then, secondly, with regard to the examinations themselves, there was at the present time a very considerable idea that the curriculum could be improved. He (the speaker) did not think the course could be extended. It was felt that a four years' course was a quite sufficiently expensive course for the remuneration which a veterinary surgeon secured after taking his diploma. But although he thought that the arrangement of the syllabus and the curriculum ought to be left to the experts, and by experts he meant the Council, teachers, and examiners combined, yet he felt that it would be a good thing if the members of the profession, particularly those who had obtained their diplomas within the last ten years, were to give their opinions as to whether the course of training could be improved, and if so in what way. Certain subjects would have to be introduced into the curriculum. Those who had the most recent experience of college teaching, of the examinations, and the syllabus could be of great service to those who would have to settle what was the best curriculum to follow. The outside voice of the profession might give their opinions with advantage. So far as he knew those outside opinions were never heard. When most men obtained their diploma, unless they became officially connected with the College or Council, they took very little interest in the educational side of the profession. This was to be deplored. The examiners, he believed, were imbued with one idea—the idea that they had a duty to perform, and this they honestly tried to perform. (Hear, hear.) It might be sometimes that students who ought to pass the examination did not, and it might be that students were lucky enough to get through the examination to whom another six months of study would have been of the greatest benefit. But so far as the examiners were concerned he could assure them such things occurred as rarely as it was possible for human beings to prevent.

Mr. H. G. BOWES associated himself with the remarks made by Mr. Woods. As an examiner he always felt that an examination must of necessity be a somewhat unsatisfactory expedient. Whatever system of examination they had, no examination could by any means be perfect. Examinations were necessary evils. (Hear, hear.) There might be possible means of improving the examination. It would be better, he thought, if it was possible to give longer time to some subjects. As it is, the time occupied by the examinations made a serious call on the time of practitioners, especially under the present system of having to go round to the several Colleges in the United Kingdom. It was quite certain that many students were not so apt at replying as other students. Some students never could do justice to themselves in, say, a quarter of an hour or twenty minutes oral examination. The examiners however, as

Towards the end of September matters in the south again looked unsatisfactory. The trouble began at Wepener, and several other towns in the vicinity were entered by the enemy for the purpose of looting supplies. Some of these places were now occupied by the British, including Dewetsdorp. Meanwhile the townships in the south and south-west of the Free State were being attacked. Koffyfontein, Jacobsdal, Jagersfontein, Fauresmith and Philippolis, were all assailed between October 16 and 26, resulting in a relatively heavy loss. It was evident that the enemy's programme was being well carried out. The strain upon the mounted troops was considerable, they were hustled here and there, by road and rail, with little time for rest, food or shoeing. As an example of what was required it may be mentioned that two columns which set out for the relief of Philippolis each marched 50 miles in one day and had then to engage and drive off the enemy.

While the south-western part of the Free State was being kept in a condition of perpetual irritation, the north-western was not less active, and Hunter, after the work in the Doornberg, determined to destroy the head centre at Bothaville. With a force of 1000 mounted troops, including the third Cavalry Brigade, Remington's and Le Gallais' forces, he moved from Kroonstad to Bothaville (45 miles), which he reached on October 20. From there the 3rd Cavalry Brigade was sent on to Commando Drift on the Vaal (25 miles from Bothaville) in order to get into touch with a column under the command of General Settle. White for some time had been operating east of the railway line running between Modder River and Vryburg.

Settle's column, consisting of 600 mounted men, guns, and infantry, had on the 19th been severely attacked at night. On 21st he met the 3rd Cavalry Brigade, and on 22nd marched south for Hoopstad; the enemy had apparently dispersed. However on the way thither he was seriously attacked, two Maxims were lost owing to the teams being destroyed, and a relatively heavy roll of killed and wounded resulted. This is a good example of the class of campaign now opening.

Meanwhile Hunter was destroying the disturbed town of Bothaville, and on October 26 returned to Kroonstad, having previously detached Le Gallais' M.I. to proceed to Reitzburg (Bothaville to Reitzburg 45 miles) in order to co-operate with C. Knox in the search for De Wet.

On 29th Hunter left Kroonstad with a column, of which the 3rd Cavalry Brigade, Remington's Guides 120, Yeomanry and Mounted Infantry 140, formed the mounted troops, together with artillery and infantry. White's force made for a position between Ventersburg town and the railway station at Ventersburg Road (Kroonstad to Ventersburg 35 miles). On 30th the cavalry made a night march and the enemy a night attack. There were several casualties. In the end the town was captured and the neighbourhood laid waste.

Just before the event last recorded fresh complications occurred. *Frederickstad*, a town in the Western Transvaal, 20 miles north of Potchefstroom was invested by a commando, and Barton with his force shut up. The Transvaalers were being assisted by Free Staters, now very mobile and well mounted, under the personal command of de Wet who, with impunity, had returned to the Transvaal! Among other measures taken for the relief of Barton was the despatch of C. Knox from Vredeford Road Station, Orange Free State. Knox, originally in charge of the upper section of the railway line (p. 108) was given a force mainly of mounted troops consisting of De Lisle's M.I., 700 strong, Maxwell's Colonial Division 300, and Le Gallais' force detached from Bothaville, consisting of the 5th, 7th, and 8th M.I., 17th and 18th Cos. I.Y., U.R.H.A., and a few Bushmen. On October 26th Knox going north crossed the Vaal, leaving Le Gallais to watch the drift. Knox made for Frederickstad, but when at Potchefstroom (45 miles from Vredeford Road) he learnt that Frederickstad had been relieved, and De Wet, who had been rudely rebuffed, was on his way south to re-enter the Free State. This was an opportunity which Knox seized vigorously, and by the evening of 27th he came upon the enemy in the bed of the Vaal, they having just crossed. Everything now combined to help De Wet; the river was rapidly rising and great delay occurred in getting the troops across, a terrific thunderstorm also burst which prevented the passage of the river until the next day. Meanwhile De Wet was severely punished by fire at the drift, and Le Gallais' force suddenly coming up on the south bank caused the commando to flee with a loss of guns and stores. Le Gallais followed, but the violence of the storm rendered pursuit impossible and it was now dark.\*

De Wet made for Bothaville, 60 miles south-west, and so little risk did he run that he left his commando there, and with an escort re-entered the Transvaal to meet Steyn at Ventersdorp, who was returning from his journey to the Head Quarters of the Transvaal Forces. By October 31 Steyn and De Wet were at Bothaville, and the invasion of Cape Colony had been settled between them.

Meanwhile C. Knox was looking for him, and sweeping around with his forces Le Gallais picked up the trail on November 5, and early on 6th attacked the camp in which both De Wet and Steyn were sleeping, "who jumped up, seized the first horses they could find, and galloped away."† Le Gallais' sudden fire had stampeded many of their horses, but a body of burghers escaped, while others were pinned down and made a determined resistance. In this they inflicted severe losses on the attacking force, including Le Gallais, but in a few hours they surrendered. It is interesting to

\* During this storm Capt. Gribben, a veterinary officer with the N.Z. Contingent, met with an accident, and for hours lay out undiscovered, exposed to the elements, with a fractured leg, pinned down by a broken cart.

† "Times History," Vol. V, p. 16.

know what the enemy lost in personnel, in view of the subsequent developments. The whole of their artillery was captured, their ammunition and stores, the whole of their waggons and many prisoners fell into the hands of the victors.\*

The most roughly handled portion of De Wet's force were sent to their farms to recuperate; the others accompanied their leader to the Doornberg where fresh commandos joined him. It is almost inconceivable, considering the loss he had experienced in guns, stores, and waggons, that within a week after his defeat at Bothaville De Wet was at the head of a force which on November 13 moved towards Cape Colony with a view to its invasion.

His way south to the Orange River led him through the waist of the Free State, to the east of Bloemfontein. This line had been greatly strengthened by fortified posts; he passed between these at a gallop on the evening of the 16th and made for the township bearing his own name, Dewetsdorp. This place, reached on 21st, was 150 miles from the point whence he had started, the Doornberg, a week earlier. His movements were quite leisurely and deliberate, though he knew full well that every nerve was being strained by the railway to forestall him at the Orange River. Dewetsdorp was occupied by a garrison of 450 men in an extended position. This, without hesitation, he attacked and compelled their surrender on the 23rd; Bothaville was avenged. In the attack all the horses of the Artillery and M.I. were shot down, though placed for safety in a ravine. Animals fare very badly in an entrenched position; they are mere targets unless shelter pits can be dug for them, as Plumer did at Sefetili, (see p. 64).

The events above related led to the second big chase after De Wet.

#### THE SECOND DE WET CHASE.

NOVEMBER-DECEMBER, 1900.

At the time Dewetsdorp was being attacked there were two small columns at Edenburg, 45 miles away, one under Barker with 500 mounted men of the 9th Lancers, and the Irish Yeomanry; the other under Herbert composed of 370 mounted troops of the 9th and 17th Lancers, infantry and guns. These were sent forward towards Dewetsdorp on 24th, but could do little. C. Knox arrived at Edenburg on 25th, together with Pilcher's columns from Kroonstad, consisting of 830 mounted troops. The same night De Wet, still in no hurry, moved off from Dewetsdorp with his prisoners, who in nearly the whole of his subsequent marching, counter-marching and circling, accompanied him on foot. It certainly seems a very remarkable fact, considering the enemy was tied down to the pace of infantry owing to the encumbrance of these men, that nevertheless they could always keep one day ahead, even when the scent was hot; two days were not unknown,

and at one period the whereabouts of De Wet were unknown for five days. Of course, this latter period was secured not by marching faster than his opponents but strategical skill in covering up his tracks. Even after every allowance is made for this, not one of the five columns eventually engaged in the chase ever caught him up. This seems incredible in face of the fact that he was hampered by dragging about the country 450 prisoners who had to be carefully guarded the whole time, while his enemy held the line of rail, which throughout lay on De Wet's flank.

Knox was not able to leave Edenburg before the afternoon of 25th, and on 27th he came in contact with De Wet, with whom was also Steyn. De Wet turned sharply to the west, and after travelling several miles went south in the direction of Bethulie. Knox meanwhile had lost the trail, and while De Wet was going due west Knox went almost due south. Both, however, were shaping for Bethulie, De Wet in order to meet General Hertzog, in whose company the invasion of Cape Colony was to be effected, Knox in order to fill up with supplies. De Wet reached the neighbourhood of Bethulie on December 2. Knox lay within a few miles of the same spot, having reached there on November 30. Knox, leaving one of his columns at this point, took the other two to Bethulie, 13 miles distant, for supplies. While he was away De Wet, on December 2, attacked the column, which had hurriedly to call upon Knox for assistance. Up to the moment of the attack nothing had been seen or heard of De Wet for five days. Yet at no time had the combatants ever been more than 25 miles apart, even at the greatest diameter of the irregular circle which the Republican and British forces described between them. It is a good example of the attitude of the inhabitants that De Wet with his relatively large force and large number of prisoners, could have marched for 40 miles parallel to and not more than 20 miles away from the line of rail held by the British, and yet not a word of information regarding him was obtained.

At Bethulie De Wet was reinforced by local commandos, the entire force was "excellently mounted, horses had been collected from all the neighbouring farms, and every one of De Wet's burghers had at least two and some of them five spare mounts under the charge of Kaffirs.\* We ask for this fact to be borne in mind in view of what has yet to be said on the remount question. At Bethulie Knox was also re-inforced by a column, under W. H. Williams, of 400 M.I.

The fight originated by De Wet on December 2 was continued on 3rd and ended in the dispersal of the commandos owing to Pilcher coming up behind and creating alarm. De Wet in consequence marched for 27 hours in a semicircle in pouring rain, at the end of that time he was only 15 miles south-east of where he originally started, but the results were good, for Knox went north while De Wet went south. It was now December 4. Knox,

\* C.V. Surgeons J. H. Bell and Dunphy were the veterinary officers present at this action.

\* *Times History*, Vol. V, p. 84.



who was 10 miles behind, received more troops, Pilcher getting a reinforcement of 500 men of the 5th and 7th M.I. and Barker obtaining Strathcona's Horse.

On December 5 De Wet reached the Orange River at Odendaalstroom, but it was in flood and impassable; also the banks on the far side for miles were lined by troops, and the bridges held. De Wet was now in a difficult position: in front of him was the Orange, which was unfordable, behind him the Caledon in a similar condition, while he and his force were lying in the triangle formed by the two. He determined to cover up his intention of a retreat north by marching east. Meanwhile Knox, marching south, reached Odendaalstroom on the 6th, and found De Wet had gone east. He was at once followed, and evidence of the exhausting effect of the marching on De Wet's animals was found in the hundreds of abandoned horses.

De Wet now turned north and followed the banks of the Caledon; to cross was impossible owing to the flood, but on the 7th he forded at a point where the water in the river completely covered his guns,\* and with horses exhausted from marching he decided to camp for a two days' rest! Knox still going east by north was only 17 miles distant. The supreme indifference of De Wet to the presence of the British columns cannot be better exemplified than by the evidence given above. This man did not hesitate to go into camp and rest for two days in the presence of five columns, all of which were within a few miles of his laager!

After resting he travelled west with the object of crossing the railway line, but Lord Kitchener was now on the spot, and blocked his movement in that direction with General Settle's column, brought from the western line and placed under Parsons. Meanwhile Knox reached Smithfield on the 10th, and here another column joined him, commanded by White, consisting of 300 mounted men of the 16th Lancers and Welsh Yeomanry, and 300 of the C in C Bodyguard. On 11th Knox went north with four columns; it was on this day that De Wet was denied the railway by Parsons. He now turned east. Knox also wheeled about, and De Wet, continuing to move east and then north, had to face the greatly strengthened line in the waist of the Free State between Thaba'Nchu and Ladybrand. Making a night march of 30 miles his force rushed the defences and once more broke through; it was December 14. The *Times* describes this bold operation as follows: "Fourie placed himself at the head of the Burghers, and the whole 3,000 men, led horses, with guns and waggons, headed for the gap and galloped through in one continuous stream.† Three British columns followed, but these he easily distanced, and going north was east of Senekal, close to the Doornberg, on December 25. The total distance covered in this brilliant march was 550 miles. The *Times His-*

*tory* points out that "since he crossed the Magaliesberg in August, no British column had ever succeeded in keeping touch with him for more than twenty-four hours, and very rarely for more than twelve hours."\* It will be observed that it was by circling and zig-zagging he deceived his opponents, and tired out their horses by giving them useless work.

The number of horses used up in the chase was very great but unfortunately no details are available. It cost De Wet 500 during the dreadful weather experienced between the Orange and Caledon Rivers, and this may be used as an index of what our losses were.

Undeterred by failure De Wet was at the meeting place in the Doornberg in January, and there arranged for his second attempt to invade Cape Colony.

## TRANSVAAL.

NOVEMBER, 1900.

The hopes which had been raised by the capture of the entire length of the Komati railway and the scattering of the Republican Forces, were doomed to disappointment; and it was clear from General French's march to Heidelberg (p. 104) that the campaign was entering upon a fresh stage. The text of this change will be considered in Part II. All that remains for us is to record the operations during November, which cover the period assigned to this part of the history, and carry the war up to the time when Lord Roberts gave over command to Lord Kitchener on November 28, 1900.

The ease with which the local commandos harrassed French during the last march of the Cavalry Division from Machadodorp to Heidelberg appeared to have stimulated the fighting instincts of the best material in the Transvaal forces. Pressure was now exercised on Belfast, and Smith-Dorrien, who was in command, determined to go out and disperse the commando. The weather was intensely cold in spite of the fact that the summer had begun; it was raining and misty. The force consisted of two columns of 250 mounted troops, including Canadian Dragoons, Canadian Artillery, together with infantry,† and left Belfast on the evening of November 1. A blizzard raged all that night and finally compelled the retirement of the troops next morning, on which they were at once attacked by the enemy. An account of the retirement, from the pen of a Canadian officer who took part in it, is a picture of war as it is.‡ Accordingly we make no apology for introducing it here in order to show the conditions under which war is waged, and the exposure and privations to which the horses are exposed.

"The rain was falling in sheets, and the wind blew swirling clouds of clammy mist through a struggling column of as wet,

\* Vol. V, p. 42.

† The veterinary officers were Majors (now Lieut.-Cols.) Massie and W. B. Hall, Canadian Veterinary Service.

‡ "With the Guns in South Africa," Lieut. E. W. B. Morrison, Royal Canadian Artillery, 1901.

\* *Times History*, Vol. V, p. 38.

† *Times History*, Vol. V, p. 41.

worn-out, muddy, and oddly-garbed men as you ever saw. . . . The dripping, shivering horses staggered along through the mud and storm with hanging heads and trembling limbs, their riders with faces so pinched and drawn with hunger and fatigue that you could hardly recognise men that you knew and met every day. They were wrapped up in all sorts of grotesque ways, infantrymen with helmets on top of slouch hats to shed the rain, artillerymen with their pony hats over Balacava caps or with bandana handkerchiefs tied over their ears, and their shoulders wrapped with horse blankets and waterproof sheets; Highlanders with waterproof sheets tied round their waist, and hanging down like women's dress skirts; cavalry with numnahs strapped to their stomachs, white rubber sheets swathing their legs, and horse blankets over their head and shoulders, . . . ambulances with wounded stuck in the mire. . . . Mules huddled in squirming heaps on the ground attached to immovable transport waggons. . . . Through it all and the howl of the gale came the muted thud of the Mausers, and the spatter of the rearguard fire. It was a retreat from the weather, not from the enemy, but it had all the elements that make a retreat in bad weather so distressing and horrible."

It is interesting to note that the Canadian horses of the battery quite recovered after a few hours rest. They were well fed and exceptionally well looked after.

Far more serious was the next attempt a few days later to deal with the same enemy. This action at Komati River (a few miles south of Belfast) was of special interest as being the first demonstration of a change in the character of the warfare which was in future practised by the enemy. Hitherto the fire injuries were inflicted by an invisible foe. But twelve months campaigning had taught the Republican forces much, and among others that fighting in the open had its advantages. In this action the enemy charged down on the guns, firing from the saddle and exhibiting reckless bravery. Here is what the above mentioned author has to say of this remarkable change in the enemy's tactics.

"I turned in my saddle and saw a sight the like of which had not been seen before in this war. Square across our rear a line of Boers a mile long was coming on at a gallop over the plains, firing from their horses . . . their aim was wild. . . . Then my poor horses began to flag, they slowed from a gallop to a trot, and gradually from a trot to a walk, and we were barely two-thirds of the way to the ridge. . . . We halted and went into action."

The "Times" history<sup>o</sup> in describing Morrison's difficulties says:—

"Seeing the guns escaping from their grasp the Boers mounted their horses and, firing from the saddle, charged down impetuously upon two troops of the Canadian Dragoons under Lieut. Cockburn. Reckless of loss they rode over the Canadians, wounded Cockburn, and struck down or captured all but six of his men. Then they bore down on Morrison's rear gun, which was retiring painfully with exhausted horses. Morrison promptly came into action at 800 yards and was gallantly seconded by Lieut. Turner, who, in spite of two wounds, dismounted his Canadians and succeeded in arresting the charge sufficiently long to enable the guns to regain the infantry on a ridge in rear."

The interest of all this lies in the fact that the tactics first tried on 8th November were destined subsequently to prove most formidable in the hands

of desperate men and to alter the character of the war. More than ever it was seen that mobility had to be met by mobility; the lesson, however, was not learnt on 8th November, nor for some months later.

In the Western Transvaal the Magaliesberg range was dealt with by three columns during September, October, and November, the mountains being scoured on both sides and top throughout their length. Methuen at Mafeking proceeded in September to the relief of Schweizer Reneke (70 miles); then to Rustenburg (Schweizer Reneke to Rustenburg 130 miles) which he reached on 8th October after fighting; from there he proceeded on 1st November to Zeerust (70 miles). On 10th of the month he was fighting at Wonderfontein near the Little Marico (close to Zeerust); on 11th he reached Lichtenberg (40 miles), and returned to Zeerust on the 19th. A day or two later he was making a forced march of 43 miles in 23 hours for the relief of a Battalion of Yeomanry, and by the end of November was again in Mafeking. Such in brief is another example of the wearing, tearing operations in which he was constantly engaged.

Settle, further south, with 600 mounted men, guns and infantry, marched to the relief of Schweizer Reneke which he reached on 22nd September, and turning south entered the Free State on 19th October and came in touch with the 3rd Cavalry Brigade at Commando Drift on the Vaal (p. 109). French in the vicinity of Johannesburg was busy creating four mobile columns containing 3,235 mounted men, and in addition holding 25 garrisons.

Paget, whom we last saw on the line north of Pretoria, was sent to Rustenburg on 31st October, but his presence led to nothing after much wear and tear of horses, and on 21st November he was at Eerstefabriken (75 miles from Rustenburg) a few miles east of Pretoria, where he received orders to attack a force which had recently destroyed the railway in the vicinity of Balmoral and Wilge River Station. Paget marched from Eerstefabriken on 25th and reached *Rhenoster Kop* on 28th (50 miles), where he found the enemy in an entrenched position in a difficult country. With him were 1,200 mounted men, Australians, New Zealanders, and Yeomanry under Plumer and Hickman. He suffered heavy losses and the enemy retired. It was the last action of any magnitude fought during the command of Lord Roberts.

In the clearing operations which it is necessary to record in order to bring the first phase of the war to a close, brief reference must be made to Natal, which had now enjoyed months of peace after all the turmoil of war. Natal, nevertheless, was being very strongly held by no less than 37 garrisons, and Natal troops were responsible for certain Transvaal towns, Wakkerstroom, Utrecht, and Vryheid, and the chain of posts\* connecting

\* Vol. V, p. 51.

\* Scheepers Nek, Blood River, and De Jagers Drift.



the latter with Dundee. Unimportant as this at present sounds, some stirring events occurred in this neighbourhood before the war concluded, and as early as the 1st October a convoy of 36 waggons was captured at Blood River and all the spans lost. Only one mobile column existed at this time, formed by the late Natal Field Force, and was working in the Standerton district; its strength in mounted troops was under 200. Troops from Natal held the railway from Newcastle to Heidelberg, necessitating 14 more garrisons for this purpose.

From these brief statements of the condition of affairs in the Transvaal, it is evident that the optimism which existed after the capture of Komati Poort was misplaced. The projected measures for the immediate reduction of the forces in South Africa and the return of troops home, were based on a complete misapprehension of the real state of affairs, and are only insisted upon here as an explanation of the utter inability of the veterinary authorities to have the question of the care of the sick placed on a firm basis. No improved system would naturally be sanctioned at a time when the responsible authorities believed the war to be practically over.

Our task of tracing the work performed by the animals of the Army from October 1899 to December 1900 is now completed; but before proceeding to the year 1901 it is convenient to discuss certain special matters for the period under consideration. We propose, therefore, to deal with veterinary hospitals, the remount system, horse supply, debility farms, and finally the statistical side for the period 1899-90, before taking up the second phase of the war.

#### VETERINARY HOSPITALS.

1899-1900.

We have made a strong point in insisting on the fact that we entered on this campaign with no provision for Veterinary Hospitals.\* The last

\* In a War Office publication of 1887 entitled "Notes on Transport and on Camel Corps," by Major D. B. Burn, 18th Hussars, the following appears at p. 21:

"Depots for sick animals must be formed on the line of communications at convenient intervals, each one being in charge of a veterinary surgeon, with a suitable number of farriers and attendants under him. These depots must keep pace with the formation and expansion of the transport, and should not be an afterthought called into existence only when the number of sick animals has increased to a large figure. They should be of two kinds, large and small. The latter are pushed up close to the Army, and take charge of fresh cases. All animals whose recovery depends upon time, and cases of debility requiring nourishment, such as the small depots are unable to furnish, are passed to the larger depots in the rear. In the Abyssinian campaign depots for the treatment of the sick were formed at intervals of 75 miles apart." The italics exist in the original. It is evident that in 1887 more advanced views existed at the War Office on the necessity for providing for sick animals in war than were held in 1899. It is difficult to understand how the War Office lost sight of its previous

authoritative publication before the war, in which a matter of the kind would have been dealt with in the entitled "War Establishments," and was published in 1898. The only veterinary requirements there mentioned are a Base Veterinary Store Depot under an officer, and an Advanced Veterinary Store Depot under a Farrier Serjeant! This is all the more remarkable, as similar tables to the above had been published seven years previously under the title "Field Army Establishments, Service Abroad," December, 1892, which provided for a Sick Horse Depot for 300 animals to be treated at the advanced base of the Army. We must look at these obsolete regulations of 1892 more closely, as it will help to throw light on a good deal which has to be said on the subject of the Remount and Veterinary Services.

The 1892 "War Establishments" provided a "Sick Horse Depot" organised in two squadrons, one of these to be for sick horses *the other for remounts!* In command of the whole was a major, a combatant officer, who was charged with the maintenance of discipline among the soldiers employed in the depot, drawing rations and forage, etc., while it stipulated that "the whole of the veterinary arrangements are made by the veterinary officer in charge, under the Principal Veterinary Officer."

The professional staff allotted to this sick horse depot was a Veterinary Lieut-Colonel and two veterinary officers. All the elements for discord were thus deliberately provided by regulation. A Lieut-Colonel was to be placed under a Major! Such a scheme was doomed to failure, and how, in the interest of discipline, it could have been approved is incomprehensible.

In a memorandum on p. 177 of these Field Army Establishments of 1892, there is a note to the effect that the "Sick Horse Depot" will be prepared to receive and issue remounts when these are sent to the front, and the remount depot (i.e., one squadron of the hospital) will receive any sick horses that it may be considered advisable to send there as a temporary measure. It then adds these words, as if the risk of this proceeding had dawned on the staff mind, "Horses with serious infectious diseases should usually be destroyed." Before leaving these tables of Field Army Establishments, 1892, it will make matters clear if we state that they also provided for a distinct Remount Depot at the base for 600 horses, but no hospital.

The designation "Sick Horse Depot" fitted in with the conception of an establishment commanded by a combatant officer; to have termed it a hospital and then placed a combatant officer in

principles. In this connection it is well to remember that there is not absent from the Army a school of thought which believes it is cheaper to destroy the sick than to attempt their cure, so that on these lines a campaign is to be maintained by newly arrived unconditioned animals! As to it being cheaper to kill than to cure, it is to be hoped the School for the study of Economics, now open to the Army, may fulfil its function.

charge would have led to further difficulties.\* It must be remembered that all this refers to the end of the year 1892. "War Establishments" are always being revised and the last edition renders all previous publications obsolete; now in the "War Establishment" of 1898, on which the Army mobilized for South Africa, there is no mention of a sick horse depot nor of a veterinary hospital, and as no provision was made for these on paper none existed for bringing such institutions into being.

If we have made matters clear, "Regulations for Field Service," published in 1892, had laid down the composition of a so-called sick horse depot, had amalgamated it with a remount depot, and had placed a Lieut.-Colonel of the Veterinary Service subordinate to a combatant major; but in the latest regulations before the war there was no mention of the provision of hospitals or places for the sick.

When the war broke out it was evident that some institution for sick animals was required, and Colonel Duck, the then Director General of the Veterinary Service, suggested that as Veterinary Hospitals were non-existent in the British Home Army but existed in the Army of India, the Indian Government should be asked for the loan of some of their hospitals for use in South Africa, and this was agreed to. They had not yet arrived in Cape Town when Colonel Rayment the acting P.V.O. landed in November. He found that the Director of Transport and the Staff Officer for Remounts, had foreseen the need of establishing hospitals for animals, though of course they had no idea where they were to come from, as they did not exist on paper in "War Establishments, 1898." It must have been a relief to them to know that properly organised hospitals were coming from India, but it must have been a still greater surprise to Colonel Rayment to be informed that on arrival they were to be subjected to the control of the Director of Transport!

The Director of Transport had absorbed the Remount Department and the Staff Captain of this Service (Major Birkbeck) was to be the Staff Officer for the Remount Service under the Director of Transport.

We get a clear insight into this novel arrangement in a Parliamentary Paper Cd. 963 †—one to which we shall frequently have to refer—in which Col. Birkbeck gives a history of the Remount Service

in South Africa from the beginning of the war up to July 1900. He tells us (p. 21) that the Remount Department in South Africa had "curious" history and that to begin with it was, in accordance with "yellow regulations for lines of communications," placed under the Director of Transport. On p. 22 he says "the 'Yellow Book' has not been strictly followed in the campaign, for whereas it directs that there shall be a Director of Transport who shall control both the Remount and Veterinary Services, in South Africa he controls neither." Up to January, 1900, however, he assumed the control of both, and by absorbing the Remount Department he automatically absorbed the Veterinary Service, and in doing so subordinated the latter to the former. This conception was based not only on service prejudice,\* but on the above referred "Yellow Regulations."

We must look at these so-called "Yellow Regulations. Their title is "Regulations for the Supply of an Army in the Field (Abroad) and for the Organisation of the Lines of Communication." They were issued on 1st November, 1890, and so were nine years old, and obsolete, at the time of the war. They were obsolete for the reason that, since their issue, the Army had been undergoing changes with which these had not kept pace. At p. 3 we have drawn attention to the astonishing fact that until the year 1886 no scheme for mobilising the Army existed.† The first complete scheme saw the light in 1890. It was improved and revised regulations issued in 1892, and these were further revised in November, 1894. From that time the work which remained to be done to fit the Army for war was more administrative than constructive, and it is evident that regulations issued in 1890 for the Supply of an Army and the Organisation of the Lines of Communications were no longer up-to-date.

But the best evidence on this point is that furnished to the Royal Commission by General Sir F. Forestier-Walker, who commanded the Line of Communication in Cape Colony. The subject of the above book is referred to in Q. 13,753, 13,781, and 13,794. He shows that the War Office never sent him the staff laid down in this book for lines of communication, and that Lord Kitchener informed him the book was only intended for small

\* The term "sick horse depot" employed in Natal during the war to designate veterinary hospitals was unfortunate and misleading. A depot suggests combatant control, and as a matter of fact scores of such depots, later on, existed over the lines of communication belonging to column commanders, where debilitated and tired horses were rested. It is true these were generally referred to as convalescent depots, but the term depot, as applied to a hospital, is wrong. On the Cape side only the word "hospital" was in use, and was employed from the time these landed in the country.

† Army (Remounts) Reports, Statistical Tables, and Telegrams received from South Africa, June 1899 to January 22nd, 1902.

\* In the mind of the Army all questions connected with the living animal are Remount questions. It does not in the least matter whether it refers to questions of disease or of health the Remount branch is the recognised authority. As the function of the Remount Department is merely to find the horses required and distribute them to the units, it is identical with the recruiting side of the Army. Yet it has never been urged that the Recruiting Department should assume the functions of the Medical Service, nor that the latter should be subordinate to it! What applies to the medical service equally applies to the veterinary. There is nothing in common between remounts and veterinary except that they both deal with the horse. Even in the "Army Orders" for the war, every order bearing on veterinary matters is indexed under "Remounts," "Horses," or "Supply and Transport." All orders for the medical service are indexed under the word "Medical."

† See R. C. Report, Appendix D.

expeditions. In consequence it was departed from, and the witness suggested a larger and more elaborate one was needed for any future campaign.

The evidence of Colonel Sir W. D. Richardson, Deputy Adjutant-General for Supplies and Transport, South Africa, is equally to the point. As a witness before the R.C., Q. 3418, he says, reading from his War Diary, "When Sir Redvers Buller arrived, he decided that one man could not manage both Supplies and Transport for such a large business as this seems likely to be; consequently, I have been turned into Director of Supplies and Bridge into Director of Transport. I think this arrangement a mistaken one, as Bridge and I must now work together as a kind of Siamese twins, and if one of us happens to disagree with the other the troops will suffer. However, the great thing is to try and run the show with as little friction as possible." Sir Redvers subsequently issued the following order, of which we only quote part:—  
"Pending the organisation\* and equipment of the Field Army . . . . . the Director of Supplies (Colonel Richardson) and of Transport (Colonel Bridge) will, during this period, act as officers of the Headquarter's Staff . . . . . It is recognised the duties of the two officers have no sharp dividing line. The above division is merely made for the adjustment of details. In a time such as the present the duties of these officers must be mutually performed, and many minor points will be decided by the senior."

If the "Regulations for the Supply of an Army in the Field" failed to be operative on the very point of all others which they were written to meet, i.e., "Supply and Transport," it is easy to understand how defective they were on other matters. It is stated that the Director of Transport would furnish all remounts required by the army in the field, and that, in conjunction with the Senior Veterinary Officer, he would arrange for the establishment of depôts for all sick and debilitated animals. It was further directed that an officer was to be appointed as Commandant of all Remount Depôts, and all depôts for the reception of sick animals, and that the Commandant would be under the orders of the Director of Transport. The Commandant was to have entire charge and management of the depôts. A Remount Committee for the purchase of animals was to be appointed and to work under the orders of the Director of Transport. It was directed that all animals unfit to march, and those sent back from the front as unfit for duty, should be received into the Remount Depôt, and that all suspected cases of disease were to be isolated. This latter suggests that the risk of infecting the Remount Depôts by sending back animals from the front was recognised. Overcrowding of the advanced Remount Depôt with sick animals, likely from the nature of case to require time for recovery, was to be avoided, and

the cases "sent elsewhere," under arrangements to be made by the Director of Transport.

Regarding the Veterinary Service itself, the "Yellow Regulation" laid down that there should be on the Staff of the General of Communications an officer of the Veterinary service responsible for all veterinary arrangements connected with the army. He was to advise the most suitable locality for establishing Remount Depôts, to inspect them frequently, and regulate the duties of his officers who were attached to them.

We have given this summary of these regulations to show the position occupied by the Veterinary Service relative to the Remount Department and Director of Transport. The position of the Acting P.V.O. bristled with difficulties. Obsolete regulations for the Lines of Communication, which we have shown the War Office itself was the first to disregard, and which Lord Kitchener condemned as impracticable for a large expedition as they broke down whenever applied, were still nominally in force, inasmuch as they had never been cancelled; in consequence the Director of Transport and Remounts was not likely to relax his control of a service ever held to be subordinate to all others,<sup>o</sup> and which by ignorance had been placed in his way †

But on their way from India were the hospitals, purely veterinary institutions, organised and run by the veterinary service without outside aid. What was to be their position on arrival, and where was the Acting P.V.O. to come in? The notion that they were to be combined with remounts and come under the Director of Transport, meant that the personnel of purely veterinary units would be placed at the mercy of another branch, while without the free disposal of its own personnel that branch was helpless. It is an axiom in the public services that no man can be made responsible for the working of his branch without authority; this authority Colonel Rayment claimed. He struggled single-handed in order to convince the authorities that sick horses and remount horses were not the same thing, and that the veterinary service run in conjunction with and under the remount service would result in grave difficulties (see also p. 48).

\* Not so many years ago, in the days when relative rank (which was no rank) existed in the veterinary service, it was stated in the regulations that the Veterinary Officer, no matter what his standing might be, was always junior of his rank.

† The ignorance referred to here, is that which must arise when technical matters are being handled by untrained men. Very few Staff Officers know anything about horses, their care or management. When, therefore, questions bearing on them come up for legislation, they are relegated to the remount department. In 1899 the organisation of the army was youthful, but in the matter of veterinary provision in war it was wiser in 1887 and 1892—a year or two after the creation of an army began—than it was thirteen years later. We can look for the explanation in the technical knowledge of the writer of the 1887 Manual (p. 113). There can be little doubt that the Remount Department was responsible for the removal of hospitals from the War Establishments of 1898.

\* The italics are ours. The force to be landed was not organised for War. Its mobilisation was complete, its interior arrangements defective.

Nevertheless on the 30th January, 1900, the following Army Order was published :

Army Order 2, 30th January, 1900.

"When Veterinary Field Hospitals are located in the same place as Remount Depots, the Veterinary Field Hospital will be attached to the Remount Depot."

"Horses which it is desired to return to Remount Depots for rest will be inspected by a Remount or Veterinary Officer, whose opinion will be taken."

The effect of the above order was to attach a Veterinary Hospital to a Remount Depot, and henceforward place it under the control of the Officer commanding the depot!

Curiously enough a day or two later, for some reason not stated, the paragraph of the order bearing on the command of hospitals was rescinded, and on the 2nd February, 1900, a fresh order was published, and read as follows :

"When Veterinary Field Hospitals are located in the same place as Remount Depots, the two establishments will, as far as practicable, be adjacent or in the near neighbourhood of each other."

The effect of this order was to remove hospitals from the control of the Remount Department. There are, however, two points to observe. It is laid down that the two places should be adjacent or in near neighbourhood, which is equivalent to an order directing that human hospitals for infectious and contagious cases of disease should be adjacent to recruiting depots. As a matter of fact two establishments of this sort cannot, with due convenience, be too widely separated. All who have any knowledge of the personnel engaged in looking after horses realise how impossible it is to prevent it from mixing, and those in charge of horses know how difficult it is to provide that animals shall never escape from their stables or enclosures.

The second point is that so little was the question of disease understood by those who framed this regulation, drawn up without the knowledge or concurrence of the Veterinary Department, that from the first it was arranged to receive into Remount Depots war-worn horses from the front. \*

The above brings to a focus our knowledge of the inner working of the official mind regarding the position of the veterinary service in the Field in 1899, its subordination to the Transport Service, and through it to the Remount branch of the latter. It only remains to say here that the whole combination of transport and remounts was swept away a day or two after the arrival of Lord Roberts. The matter will be considered elsewhere, but it will be apparent that those operations on which the movement of an Army depends for any greater distance than a few hundred yards, requires the undivided attention of the responsible officer.

Before taking up the work of hospitals during 1900 it is necessary to call attention to regulations

drawn up by the Director of Transport for the treatment of animals on arrival in the country, for which there was absolutely no justification. Such interference with the work of another branch of the service could only lead to friction, and would never have been attempted with any other service. If Colonel Rayment failed to see eye to eye with the authorities in Cape Town, it was due to the attempt to subordinate his service to another and distinct branch, and so place it in a position of impotence; to the efforts made to take from him his small trained hospital personnel, to resenting his opinion on the ration question; he, with real justice, chafed at the attitude of the Transport Department in their unjustifiable interference with veterinary matters. \*

Turning now to the hospital question, we know that those provided by India were only able to deal with a small proportion of the stupendous collection of sick. The starvation of the horses of the Cavalry Division, Artillery, and Mounted Infantry after the Paardeberg campaign, proved the necessity for some extra provision being made in the Field; we have described the improvised products at Bloemfontein (pp. 41-58), Kroonstad (p. 72), Pretoria (p. 79), Middelburg (p. 97), and Barberton † (p. 102). Henceforward the authorities were only too glad to call these places into being, but organisation during war is a very difficult matter, even under trained officers, as we have seen in the case of the Mounted Infantry (p. 35).

\* About November, 1899, there was issued at Cape Town a pamphlet entitled "Organisation and Details of Transport, South African Field Force," containing all the printed instructions issued since August by the Director of Transport for the use of Units. It dealt with Transport questions and subjects, the whole arranged with singular clearness, and a full conception of a unit's requirements. It also contains at page 23, *Veterinary Precautions*, dealing with "Horse Sickness," "Glanders," and "Sand-Colic," all irreproachably correct, being mainly drawn up from information (unacknowledged) furnished by the Veterinary Branch of the Department of Agriculture, Cape Town. Obviously, diseases are not Transport questions! This pamphlet does not deal with "Medical Precautions"; and there is no poaching on the preserves of the twin-brother "Supply," but there is a complete absorption of the Remount Department and Veterinary Service, and hence the "Veterinary Precautions" issued by the Director of Transport.

In the opening paragraph of the Veterinary section we are told that all animals on arriving in the country should receive two ounces of Magnesium Sulphate daily for a fortnight, under the supervision of the Veterinary Officer, and that the mag. sulph. could be employed in substitution of the ordinary ration of salt. There is no question here of the drug being administered under the advice of the Veterinary officer; the Director of Transport is the prescribing physician, the veterinary officer is merely the medium for carrying out his instructions.

There was a P.V.O. in Natal at this time, and war had only just been declared when these instructions were issued. There is absolutely no excuse for this interference; it is as unjustifiable as would have been regulations issued by the P.V.O. dealing with transport matters.

\* The inspection by a Remount or Veterinary Officer was obviously not a safeguard against disease, but against a horse being returned for a rest which was not in need of one.

† We ought to have stated at p. 102 that the hospital organised at Barberton was placed under C. V. S. Brownless, who again (p. 97) did good service.

a body, endeavoured to do their duty conscientiously to the profession, and to the students, and they endeavoured as far as possible to find out what a man knew, and not what he did not know. He paid a tribute to the services of Mr. Woods as an examiner.

Alderman J. CLARK proposed "The Veterinary Profession." He said the profession was a most honourable one, and had a humanising effect. He was pleased to note that the horses in their streets were improving every year, and this was largely due to the veterinary surgeon who said to the horseowner, "It does not pay you to keep a poor horse." Corporations were year after year getting rid of their poor horses. If a horse driver had a wretched old horse he was sometimes careless and brutal, but if he had a good horse he knew that his master expected him to look after it well. A brutal horse driver was in many instances brutal in other places beside the stable and the street. (Hear, hear.) The whole teaching of their profession was "better horses better men." If the veterinary profession was not paid as it ought to be, then it was their own fault because they did not make themselves felt as they ought to do. Personally, he was sorry that they had not had the same recognition as the medical profession under the Insurance Act. (Hear, hear, and laughter.) He thought that the medical profession had made itself felt, and rightly so. The man who wanted people to work for no wages, the sooner he got out of the way the better. (Hear, hear.) Every profession and every calling ought to be well paid. Speaking of tuberculosis, Alderman Clark, said they ought to begin at the primary cause, and if they got the practical help of the veterinary profession it would go a long way towards stamping it out. In the past people had said they would never be able to stamp out smallpox. Some people now said they would never stamp out tuberculosis. But if the legislature had employed the services of the veterinary profession, as they had the medical profession in this matter, it would have been a good thing. There was no doubt that tuberculosis commenced with the cow, the tuberculous udder draining into the milk churn. He (the Alderman) thought sometimes the veterinary profession were not sufficiently in evidence. The more their forces were united the better it would be for them.

Mr. J. H. CARTER, in reply, expressed his appreciation of the invitation of the Yorkshire Association to be present at their annual dinner. The Yorkshire Association had always a warm place in his heart, because of the fact that his father was one of its founders. His father had the proud pleasure of seeing the Association grow up into vigorous manhood. He (the speaker) congratulated the Yorkshire Association upon the progressive way in which it had gone forward. He was sorry to see that one of the Yorkshire cities were trying to obtain powers by which they could give medical officers authority to go into cowsheds and examine them. He (Mr. Carter) held that was the duty of the veterinary surgeon. He recalled that on the last occasion he was present with the Yorkshire Association Professor W. O. Williams was also there. Professor W. O. Williams was a man of undoubted ability, one who was always a gentleman wherever they met him. Alluding to the College, Mr. Carter said the finances were not very rosy at present. At the last meeting of the Council it was stated that their liabilities were over £850, and although it was reported that the balance they had in hand was £500 0s. 4d. yet one must not run away with the idea that that balance had come from the revenue of the College. It represented the unexpended amount of the last Consols which they had sold in order to meet their liabilities. He hoped the day was not far off when the Bill to which they were all looking forward would be placed on the Statute Book. It was money they wanted, and money they must have

if they were to progress as a profession. Their teaching institutions also were in low water. They were almost entirely dependent on the fees from the students, and there was only a very small grant from the Government. It was a pity they did not receive more State aid than they did. The Government ought to come to their assistance and do all they could on their behalf. It could not be denied the profession was doing a great national service. At the last meeting of the Council the Fellowship examination was considered, and it was decided to revise it, and also to institute another diploma in Public Health. There was no doubt that for public offices such as Municipal and County Council appointments, the Indian Civil Service, the Board of Agriculture, and similar appointments there was a big demand for gentlemen who were possessed of a scientific turn of mind and had a knowledge of scientific progress.

Mr. F. W. GARNETT remarked that at the present time their profession was going through a crisis in its history. (Hear, hear.) The crisis started when the Council instituted, to their honour be it said, the four years' course. From that period they had been gradually losing money, and before the Parliamentary Committee, which had just reported on the public Veterinary Service, it was his (Mr. Garnett's) privilege, having been nominated by the Royal College, to give evidence on their behalf and to trace clearly that the institution of the four years' course was the beginning of their financial losses. That four years' course was absolutely essential to bring the profession up to the status which it should hold. The Parliamentary Committee recognised that the work the Royal College was doing was a most important one from the public health view. He had no doubt as the result of the report they would eventually receive assistance from the Government, whatever party was in power. Nothing but good could come to the profession from that deliberation. It had been resented by some members of the profession because there was not a single veterinary surgeon on the Committee. He did not object to criticism, because he thought criticism did good. The Committee, however, was a very responsible one, and had dealt thoroughly with the matter. Speaking of the Royal College, he contended it had done a great work in the past, but had been hampered for lack of funds in its efforts to keep up to present day requirements. It was urged a couple of years ago that in order to bring the profession into line with the sanitary requirements of the present day that they must have a diploma in Public Health. That matter was shelved for the reason that they had not the money to apply for a new Charter. The time had now come when they must go on with that project whether they had money or not, or other bodies would come forward and grant the diploma. (Hear, hear.) He urged that if the interests of the veterinary profession were to be advanced practitioners must withdraw their opposition to the Act and unite as one man in support of their measure. (Hear, hear.) Their Fellowship examination must be remodelled. Under their present Charter no member of the profession could take his Fellowship unless he had been in practice, or been a teacher at one of their Colleges for at least five years. At the present time that was an absurdity. They must shorten the period. Whatever changes took place with regard to the Fellowship degree he (the speaker) would uphold it as being the premier degree—no matter what other diplomas might be instituted. He sincerely hoped that in its remodelled form the Fellowship degree would be regarded as the highest degree in their profession. Something would undoubtedly have to be done in regard to the curriculum in the schools. They must offer facilities to men who had taken Science degrees in the Universities. These men should be allowed to start with the second year's course, foregoing the first year's course which

might be purely a science course. He looked hopefully on the position of the profession if they could only get money to develop it in the right direction. There were more opportunities for young men to make a reasonable income, and to obtain good appointments, than in any other profession he knew.

Mr. J. A. DIXON, in submitting "The Medical Profession," said it stood in very close relationship to them. It was, he reminded them, a member of the French Medical profession who first introduced veterinary teaching to this country, and ever since the relationship between the two professions had grown more intimate, until to-day they were proud to speak of the medical profession as the sister profession, and to hear the medical profession speak of them in similar terms. The constant progress of science strictly medical and strictly veterinary only tended to bind them closer together. If they, as veterinary surgeons, owed a lot to the medical man Bruce, the medical profession in their preventive measures owed a lot to Jenner. Nothing but good could come of a closer intimacy between the two professions. He, Mr. Dixon, was very proud to note year after year at the Congresses which were arranged for the discussion of subjects pertaining to the Public Health, the splendid good fellowship which existed between the veterinary and the medical representatives, and he trusted this would long continue.

Dr. DENNISON (Leeds) responded. He agreed that the medical profession was tightly locked up with that of the veterinary profession, and should be more so. They could do valuable work in unison. With regard to Mr. Lloyd George and legislation, for the sake of the veterinary surgeons he hoped he would leave them alone. He thought it would be for the welfare of the country if every veterinary surgeon had to compulsorily notify tuberculosis and be paid for doing so, but what was going to happen? How many herds were they going to have left on the land? That was quite another thing, and they had to look at it from that standpoint. Dr. Dennison alluded to what was being done to combat tuberculosis in Leeds, and said that shortly Leeds would be in an excellent position to cope with this malady.

Mr. J. McKINNA proposed "Kindred Societies." They all confessed at once how much they owed to the kindred societies. Undoubtedly the progress made in their profession was largely due to the Societies. They owed much to Dr. Bradley for the re-modelling of the "National" and to that Society they looked forward with much confidence. He hoped it would be their "guiding star" and that it would speak with no uncertain sound on anything and everything which affected their well being as a profession. Representatives were present at their festive gathering from many parts of England. The Yorkshire Society wished all societies well, and trusted that they might all long flourish.

Prof. AINSWORTH WILSON, in responding, expressed his delight at being present that night. He did not think any part of their personal duty was more important than that of attending the meetings of the kindred Societies. It was a duty which they owed not only to the profession but to themselves. Sometimes it was difficult if one was engaged in a busy practice or in a remote part of the country to attend meetings of the Societies, but whenever possible he urged them to do so. He (Prof. Ainsworth Wilson) represented three Societies that night. He was an old member of the Central in London, a comparatively recent member of the Scottish Metropolitan, and, like those present, he was a member of the "National." He took it they were all members of the "National." Most of them had been members for a number of years. They all delighted in thinking that the "National" was now truly national in character as well as in name, and that they were able to voice their feelings as a profession through the Society in a way which they could not formerly do.

Mr. G. E. BOWMAN, in proposing "The President," said Mr. Abson was a man respected by the whole profession. He had a large practice, and he was much esteemed in Sheffield. He was an Ex-president of the Royal College of Veterinary Surgeons, the highest honour his Profession could bestow upon him. He, Mr. Bowman, was certain that under the presidency of Mr. Abson the Yorkshire Society would have a memorable and happy year. Their President needed no eulogy. (Applause).

The PRESIDENT (Mr. Abson) who was received with musical honours, said he was much indebted to Mr. Bowman for the very flattering words which he had spoken of him, and which if the half were true would make him pretty much of an angel. He, the President, was only a very humble member of the Profession, but having accepted the Presidency of the Yorkshire Association it would be a very great disappointment to him if the coming year was not a successful one. Nothing should be wanting on his part to make it so, and he was confident that with their hearty co-operation he would succeed.

During the evening a capital musical programme was provided by Messrs. Harry Blackie, H. Bradshaw, A. Jefferson, E. E. Johnson, and W. Musson.

J. CLARKSON, Hon. Sec.

## JOURNEY THROUGH ABYSSINIA.

LECTURE BY MR. STORDY, C.V.O.

On Monday evening, January 27th, a distinguished audience assembled at the Assembly Rooms to hear Mr. Stordy's account, and see the fine biograph views, of his journey to Abyssinia with his travelling companion, Lord Cranworth. His Excellency the Governor, Mrs. Belfield and daughters were present, together with most of the leading officials and residents with their wives. Many people came from up-country, Mr. Stordy being so well known as an interesting *raconteur* with pretty wit. The Hon. R. C. Bayldon presided, and in introducing the lecturer said that though Mr. Stordy was well known to all of us, he had to present him in a new light as a pioneer of trade and commerce to a country most difficult of access. The proposal was for the Government to send a mission in order to open trade with Abyssinia, and Mr. Stordy, Chief Veterinary Officer, was chosen for the task. He did not think the Government could have chosen a better man. The project was one of great importance to this country. We badly needed stock, and Abyssinia possessed good stock, horses, etc., so much in demand here. Mr. Stordy started on his mission and did it well. He (the speaker) looked to Government to bring to full fruition what had been started. There was some talk of a commission from Abyssinia coming here, in order to see for themselves what a good market this place presented. One point he would state in conclusion, the journey was not at all a picnic. It was real hard work. He would propose thanks to the lecturer for all he had done for the welfare of the country.

Mr. Stordy started his trip by exhibiting on the screen the early population of Nairobi—thousands of natives, a few Indians, European one—the lecturer. (Laughter). This was followed by exhibiting the latest census, about a thousand European residents, besides the thousands of Indians and other coloured races. He also exhibited the potentialities of the Uganda Railway—a smash up—(Loud laughter). But he hastened to explain that this was indeed a unique occurrence. He exhibited the first building possessed by Government, a wattle-and-daub and straw shanty, and threw on the screen in contrast the present Government House and the new Post Office. Proceeding, the audience saw the difficult



ties of travelling along the Fort Hall Road; and the pictures soon took us to Nyeri and Meru, with snapshots of the natives. Scenes were shown of the slopes of Kenia, with some fine views of Kenia's snowy summits. The long march then was illustrated towards Marsabit, the waterless tracts and the scanty bush, the banks of the interesting Guaso Nyiro river with its groups of weird palm trees, were passed; thence on past Marsabit towards the Abyssinian border, where a great region of waste and stone had to be traversed, camels being the means of transport. Mr. Stordy here depicted a beautiful scene of this desolate country, simply covered with stones and boulders, very far, as he remarked, from the "pleasure jaunt" which some carping critics characterised his journey at the outset. Some splendid types of the Gallas and Borans, men and women, were exhibited.

At length the great escarpment which marks the border of Abyssinia was reached and a long climb up these steep slopes brought the caravan, or *safari*, to the chief objective, Abyssinia, which, apparently, is a land overflowing with milk and honey; but the natives certainly appear of the truculent kind. The town of the "warden of the marches," the Chief of Southern Abyssinia, came into view, with his highness himself and his wives, all in gorgeous raiment. How Mr. Stordy and Lord Cranworth outwitted this gentleman when it came to passports should be heard to be enjoyed, as the actual official document was not portentous enough for him.

Travelling over a splendidly cultivated land, with herds of horses, cattle and goats without number, the capital, Adis-Ababa is reached. Here we have some fine views of the buildings in the town, notably the British Consulate, which cost many thousands of pounds to build. We have the Emperor's palace, the curious churches, the market-place and place of execution. We have some fine photos of celebrities, including the nominated successor of Menelik and the Prince's father (the Prince, by-the-by, is not unlike Dauda Chwa, the young King of Uganda). We have a bust presentment of the great Menelik (who, Mr. Stordy thinks, may still be alive, due to his successor not being formally crowned) and the most gorgeous and interesting of all, the venerable Archbishop of the Abyssinian Church, in his full canonicals. Lack of space forbids a description of all which befell the expedition. After leaving Adis-Ababa the party marched to the railhead in French territory, thence to Djibouti, via Aden, home.

After the lecture, Lord Cranworth (who was greeted with cheers, this being his first public appearance since his return), the fellow-traveller of Mr. Stordy, said that the success of the journey was entirely due to Mr. Stordy's efforts. He descanted upon Mr. Stordy's marvellous qualities as a photographer and said he never wished a better companion. Although Mr. Stordy gained good concessions in the way of future trading connection, yet they had subsequently heard that stock was not so much needed by this country as first estimated. But he considered that the time would come when trading with Abyssinia would be a matter of importance.

He admired Mr. Stordy for his persistency as a photographer. He recalled the interview with the Archbishop. They were told such an interview was impossible, and when they got it granted, he, Lord Cranworth, wondered how Mr. Stordy would obtain the prelate's consent to sit in his full robes. But when the time arrived, Mr. Stordy, instead of beating about the bush, greeted the Archbishop with the straight inquiry "when he would be ready to be photographed, as we want your best clothes on." (Laughter). In passing through a rather hostile crowd, which he (the speaker) did not at all like, he looked for Stordy to get their escort together. All he saw was Mr. Stordy deep in his photographic paraphernalia, and all he got from him was a request that

he should "keep the natives fixed as they were until he was ready."

Capt. Riddell, another old Abyssinian traveller, also spoke. He considered that Mr. Stordy's lecture was unique. The Abyssinian frontier was of increasing interest to us year after year. The people were highly civilised. They produced good horses and mules. He considered the work done by the expedition was excellent, as he knew well the difficulties encountered. He trusted that the work done would be clinched, and he awaited the opening of regular trade with the country.—*The Daily Leader of British East Africa*.

#### Pollution of a Stream—Damages against District Council.

At Staffordshire Assizes, on Monday, the case of *Brawn v. the Brownhills Urban District Council* was resumed. It was an action to recover damages for pollution of a stream by sewage matter coming from defendants' sewage works, it being alleged that the works were not of sufficient capacity to deal effectively with the sewage. Mr. W. J. Disturnal and Mr. R. J. Lawrence were for plaintiff, and Mr. C. F. Vachell, K.C., and Mr. J. Wylie were for defendants.

Prof. Dewar, of Edinburgh, said that water polluted by sewage if drunk by cattle had an injurious effect. It caused indigestion, loss of flesh, and general diarrhoea. The cattle also became susceptible to diseases, including tuberculosis.

Mr. Vachell, in opening the case for defendants, said he accepted a good deal of the evidence which had been given as to the state of the brook since 1909. After one or two attempts to remedy the defects in 1909 by the erection of more powerful machinery and the putting down of a larger rising main to carry the sewage to the sewage farm from the pumping station, and after various cleanings out of the brook, a new state of things started. A powerful engine with plant was installed so as to be capable of effectually dealing with the sewage, and although at times sewage might have found its way into the brook it did so at such rare intervals and in such comparatively small quantities that no one could say there was damage done to the brook. He had to admit pollution of the stream. Very likely there had been loss of cattle. No man had had a farm yet who had not lost some stock, and the case for the defendants was that although there might have been deaths they were not due to drinking the water from the stream.

Evidence was given by Mr. G. H. Shaw, District Council surveyor, and Edward Sale, engineer at the pumping works, the latter of whom spoke as to the condition of the stream.

The evidence of Sir John M'Fadyen, which had been taken on commission in London, was read to the jury. In the course of it he said he was present at a post-mortem examination of a cow on the farm, and that he saw nothing which would suggest sewage poisoning. He examined the stream, and he saw nothing in the condition of the water which suggested contamination by sewage, and there was nothing in the appearance of the water to suggest to him it was dangerous for animals to drink. There had not come to his knowledge any evidence which would lead him to believe that cattle could be poisoned by drinking sewage water, and he had not read any evidence to bear out that result.

Mr. O'Connell, veterinary surgeon, Lichfield, gave evidence to the same purport, and expressed the opinion that it was not injurious to cattle to drink impregnated water.

Henry A. Cooper, bailiff on the sewage farm, deposed that cattle were grazed on the sewage farm on which were sewage carriers, and the animals were in the habit

of drinking from the carriers without suffering any ill-effects.

The jury found a verdict for plaintiff, and assessed the damages at £341 13s.

Mr. Disturnal applied for judgment and an injunction, but the Judge decided not to grant one having regard to the fact that there was already an injunction against the Council in existence.—*The Birmingham Daily Post*.

#### The New Tuberculosis Order.

In a circular just issued to local authorities explanatory of the new order dealing with tuberculosis in cattle, which comes into operation on May 1, the Board of Agriculture announce that the Treasury has agreed to refund half the net amount payable as compensation for slaughtered animals during the first five years. Local authorities will thus receive substantial pecuniary relief during the initial stages, when expenditure may be expected to be abnormally high.

The order aims at securing the destruction of every cow found to be suffering from tuberculosis of the udder, or to be giving tuberculous milk, as well as of all bovine animals which are suffering from tuberculosis with emaciation, since these are known to disseminate freely the germs of the disease. Local authorities are charged with the duty of investigating reports received under the order, with the assistance of a veterinary inspector, with a view to causing the slaughter of any animal affected. The inspector is empowered to extend his examination to other animals that have been associated with the one suspected, in order that he may take steps to deal with any which in his opinion present clinical symptoms of the disease.

Local authorities are required to cause every animal found by them to be suffering from one of the specified

forms of tuberculosis to be slaughtered. The compensation, payable in cases in which the post-mortem examination does not show tuberculosis, is a sum equal to the full value of the animal and a further sum of 20s. Where tuberculosis is found, the proportion of the value of the animal payable by way of compensation is made to depend upon the extent of the disease which is present. The order prescribes the precautions to be taken in respect of the milk, etc., of suspected animals and their detention and isolation whilst under suspicion. Provision is also made for dealing with suspicious animals exposed at markets, fairs, or sales.

"The Board believe," adds the circular, "that public opinion is favourable to the adoption of concerted measures designed to check the spread of tuberculosis throughout the country. No such action can be satisfactory which fails to make provision for dealing with the disease in the animal, but it should, the Board feel, carry with it a full measure of public sympathy and support. The payment to agriculturists of reasonable compensation for animals slaughtered in the public interest must in the opinion of the Board be an essential feature of any well-devised scheme for gradually reducing the prevalence of tuberculosis in animals."

"On the other hand, the liability of the Treasury and of the local authority to provide such compensation on the present basis from public funds is a serious one, and cannot be continued unless events show that a return commensurate with the burden imposed is being obtained. It behoves agriculturists, therefore, to second the efforts of the public authorities by the segregation of all bovine animals which respond to the tuberculin test, so as to prevent tuberculosis from being spread within the herd, and the Board will be prepared to advise how this can best be done in particular cases."

#### DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
U.K. BRITAIN.													
Week ended Feb. 22	15		16				2	2	89	164	10	29	280
Corresponding week in	1912		32				6	9	102	229	6	56	940
	1911		30				4	20			19	21	265
	1910	34		47			8	16			21	31	190
Total for 8 weeks, 1913	103		116				28	90	678	1484	89	267	3136
Corresponding period in	1912	206	234				28	46	1110	2712	114	433	6311
	1911	178	202				39	155			234	273	3070
	1910		242	293			54	169			235	188	1379

† Counties affected, animals attacked: Kent 1, London 1.

Board of Agriculture and Fisheries, Feb. 25, 1913.

IRELAND. Week ended Feb. 22		...	...	...	...	...	...	Outbreaks	26	...	4
Corresponding Week in	1912	...	...	...	...	...	...	3	15	5	22
	1911	...	...	...	...	...	...	2	11	...	51
	1910	...	2	2	...	...	...	1	11	...	...
Total for 8 weeks, 1912	...	...	...	...	...	...	...	64	161	84	161
Corresponding period in	1912	...	1	1	...	...	...	20	158	21	192
	1911	...	3	3	...	...	...	21	159	28	459
	1910	...	4	4	...	...	...	17	168	6	215

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Feb. 24, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



### Prosecution by the R.C.V.S.—Decision.

In the case of the R.C.V.S. against Richard Evans, of Dulwich Village, for "unlawfully using and taking an addition and description, to wit, "Canine Doctor." (See our issue of Feb. 15, p. 514).

Mr. Baggallay said that the only question in this case was whether the defendant had committed an offence under Section 17 of the Veterinary Surgeons Act. In his opinion, when a man called himself a "canine doctor" he used a description which implied that he was a practitioner of a branch of veterinary surgery—he was prepared to cure dogs. That was a branch of veterinary surgery, and when he said he was a canine doctor the defendant was committing an offence against the Act. The defendant would have to pay a fine of £5, and £3 3s. costs.—*The Morning Advertiser*.

### Personal.

Dr. CLEMENT STEPHENSON was at the Aberdeen Angus Sales at Perth last week apparently quite recovered from his nasty accident received rather more than a year ago. Every one was delighted to see him out and about again.

### OBITUARY

WILLIAM ALLINSON, M.R.C.V.S., Harrogate.  
Graduated, Edin: 1840.

Mr. Allinson's death occurred at his residence, Oak House, Leeds Road, on Feb. 20th, from heart failure, following bronchitis.

Mr. Allinson was 99 years of age, and graduated at Edinburgh in April, 1840. The only other member on the list who graduated before the incorporation of the Royal College of Veterinary Surgeons is Mr John Aitken, senr., of Dalkeith, who graduated in April, 1841, at Edinburgh. (See also note at p. 367).

A correspondent writes us of the death from cancer, on Feb. 22nd, of Mr. I. T. Moore, Meat Inspector of Nottingham, and formerly of Edinburgh. We are unable to trace the name in the Registers.

### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, Feb. 21.

#### REGULAR FORCES. ARMY VETERINARY CORPS.

The following Lieuts. are confirmed in their rank :—  
G. V. Golding, H. D. Lewis, D'A. S. Beck, H. Stephen-son, T. L. Shea.

Mr. Hammond, of Elm Tree Farm, Thorpe Morieux, has just had to have shot a favourite old dark bay hackney, named "Midnight." It had reached 40 years of age, and was working until about 2 years ago. It had been in Mr. Hammond's possession about 30 years, having changed hands only for a short period. It was at one time one of the fastest attending Norwich market. Singularly a favourite old dog, named "Rover" 15 years of age (belonging to Mr. Hammond), died the same day.

### CORRESPONDENCE.

#### A SURPRISE.

Sir,

In your valuable paper, *The Veterinary Record*, I read a communication from W. E. Blackwell, of Towcester, concerning a valuable shorthorn cow calved six days (twine) and cleansed partly, some cleansing having remained in the uterus. I may say that in everyday cattle practice this is a usual occurrence: When a cow has two calves she also has two cleanings.

I had a call last Saturday week to a similar case to Mr. Blackwell. Cow calved one calf only, cleansed part and part remained; the part of cleansing that generally holds with greatest tenacity is the cord part that was attached to the umbilicus of the calf, and this part usually hangs from the vulva and is seen at other times; it is within the vulva and is not seen or suspected till you introduce your hand and explore for it.

These cases of retained cleansing in cows are often seen in dealers cows, as they are trained and faired with a lot of knocking about, which causes them to calve prematurely, with the result that they hold the cleanings.

The usual symptoms are: Straining, loss of appetite, loss of cud, fevered, quick pulse, depressed and dull, general weakness, ill smelling discharge from vulva.

Treatment. I used to wash out uterus, but I hardly ever do this now. I objected to the washing out process on account that it was very difficult to get away all the injected liquid. I now try to remove all the portions remaining in the uterus if I can get in my hand, if I can't get in my hand, and there are any parts protruding, get them away if you can and insert one or two pessaries of chinosol, salol, or iodoform; or antiseptine, and give the cow tonics, stimulants and internal antiseptics.

With this treatment the above-mentioned cow got all right, she was calved six days before I was called in, after treatment as above. She parted with cleansing on 8th day, started to feed and improved every day afterwards. I shall be glad to give Mr. Blackwell or any other brother practitioner any other information in my power in regard to treatment of these troublesome cases.—Yours truly,

A. M. CRICHTON, M.R.C.V.S.

72, Bow Street, Lisburn, Ireland, Feb. 13th.

#### ARECOLINE FOR CATTLE.

Sir,

Doubtless your correspondent "Junior" and his client were correct in considering that the cow died from the effects of the arecoline. Besides its stimulating action on salivary and intestinal glands (and sweat glands) this alkaloid exerts a paralysing action on the heart and on respiration, and hence it is a very dangerous drug to use where the heart is affected, either organically or weakened by severe illness—long continued colic for instance. Frohner gives the therapeutic dose as 3-10 to 1½ grains for the horse, and says that cattle are very susceptible to its action, 1½ grain doses often producing in them threatened respiratory arrest.

To keep Junior in countenance, I should like as a senior to give a little experience of my own. Some years ago I was sent for to attend a mare suffering from colic. I found her rolling about in a paddock and learnt that she had been bad some hours and had received a drink or two. Having got the patient into a box, I gave enemas and a couple of colic drinks during the course of two hours, and then the pain abated, the skin dried and altogether the case looked more hopeful, the abdomen was, however, still tense, and there was no sound in the intestines. It did not look like a case that ought to be left, considering that I was seven miles from home and night was coming on. I hesitated between a physic ball, Eserin, and Arecolin, and finally gave ½ grain of Arecolin hypodermically. My client, a good Scotsman, then said, "Come awa' and we'll ha'e a refreshment," and into the house we went. We had scarcely got well settled down when there was a heavy foot in the passage, a knock at the door and a shock head protruded into the room announcing "the meer's deed." I nearly jumped from my chair.

"Started like a guilty thing,  
Upon a fearful summons."

"John, put my cob in," said I. I didn't know whether my refreshment was Scotch or Irish—it was ruined.

I should advise "Junior" to go slow on his Barium chloride, his Eserin and Pilocarpin, and his Areocolin. Oily drinks are messy things to give, and they spoil one's clothes; but in many cases, particularly in old animals, they are much safer than alkaloids.—Yours, etc.,

W. R. DAVIS.

#### THE PROSPECTS OF THE PROFESSION.

Sir,

Mr. Holland's letter on the above subject, which appeared in your issue of Feb. 8th, shows that he is an accurate observer. His views will be approved by the majority of practitioners, as they have good reason to know that the opportunities depicted in glowing colours by a certain "leading Professor" are in reality purely imaginary. The fairy tales told by individuals, with a view to "draw" students to the colleges, are now commencing to be appraised at their true value, the result being that parents and guardians hesitate before putting youths to a calling in which the prospects are very doubtful. Hence the diminished number of students, *Hinc illæ lacrimæ!*

We are told that the raising of the Matriculation Examination is in part responsible. What an insult to the youths of the present generation and to the system of education!

We are told also that a dearth of practitioners is likely to ensue. Does any practitioner seriously believe such a statement? If there are professors who hold such a view, let them undertake a tour both in town and country, and observe the competition that exists, also the means that are adopted in order to obtain practice. Let them also interview the hard-worked assistants and get their views on the prospects of the profession. Then consider the wretched salaries paid by various municipal authorities and the number of candidates that apply for any vacancies that occur.

If we are to accept the statements of some of the officers of the Army Veterinary Corps, that branch of the Service is anything but a bed of roses.

In the Presidential address of the Royal Counties V.M.A. we find these words: "Personally I think we are the hardest worked profession and the worst paid." True sentiments are these, and they explain the present diminished number of students. Those individuals who bewail the altered state of affairs at the colleges, remind us of the emigration agents who display beautiful coloured illustrations of the great North-west in the summer time and autumn, the blue sky and the verdant pasture, the yellow corn and the happy harvest time, but they very carefully omit to depict scenes of the long winter and the Arctic surroundings, and the risks and hardships which must be endured. But not all the phantom sketches of lucrative posts in preventive medicine and canine practice will lure the students, the bubble has burst, and only a limited number will be attracted. That a sufficient number will be forthcoming we have not the slightest doubt, but the day is long past when a teaching school can be regarded as a paying concern.

Probably in the future every University will have a veterinary faculty, "a consummation devoutly to be wished." Then the number of the students will not be the important matter as at present, nor will there exist the anxiety to send forth a large number of graduates at each examination. Quality not quantity will be the desideratum, and the best school will not be the one that sends out the largest number of graduates. "There is always room in the top storey—the difficulty is to get there." So said the Chicago merchant to his son.

But it is not always wise to accept the views of those who have reached the top storey with reference to the prospects of the profession. The "cakes and ale" stage is often attained by luck, although it is ascribed to hard work and ability. Those who attain it are inclined to look through rose-tinted spectacles and say to the juniors, "See what I have achieved—alone I did it!" Some indeed have reached this stage by practising methods which they now condemn

from the house-tops. "Scorning the base degrees by which he did ascend."

The post-prandial oration is like the fashionable preacher's sermon—comforting. Few, very few, of the rank and file indulge in such, it is generally a professor, a salaried official, a retired Army man, or a practitioner who has laid by the nest egg and is independent of practice. All these can describe the prospects of the profession in glowing terms, they either know nothing of the trials of their less favoured brethren, or they draw a veil over their reminiscences of the past, and forget the struggles of competition, the ill-paid services, the blackmail exacted by grooms and coachmen, and the troubles of the shoeing forge. They attempt to stifle the commercial aspect, and to draw up a code of ethics for the guidance of the juniors, the observance of which would certainly land the unfortunate seeker after professional dignity in the Bankruptcy Court.

It is high time that we should admit the lessened opportunities for veterinary practice, and not delude aspirants for the profession with the idea that a dearth of practitioners exists. Let them clearly understand that never was there greater competition than at present, and we may add competition carried on in the most dishonourable fashion.

For those who have relatives in the profession whom they may succeed, the prospects are fair. For a man with an independent income, the profession is a delightful hobby, but without the above attributes it becomes a question whether the investment is a desirable one. And unless there were special circumstances, we should hesitate before advising a youth with ability to enter the veterinary profession, our experience being that the opportunities and remuneration are not by any means in proportion to the time and money expended.

After all is said and done, the selection of a profession must be regarded in the light of an investment, and certainly few will be found to deny that the medical profession offers far greater opportunities and higher remuneration than the veterinary, provided of course that the aspirant has ability.

The opportunities in veterinary practice are limited, the fees are very low in comparison with the work done, and the methods often adopted to obtain practice are, to say the least of it, anything but honourable, and although professional etiquette is preached often enough, it is conspicuous by its absence in the ordinary course of practice.

The above remarks are not intended in a disparaging sense, they are made as the result of years of experience. The evils mentioned can be rectified, the mode of reformation is in the hands of practitioners.

"The fault, dear Brutus, is not in our stars but in ourselves."  
—Yours, etc.,  
DIOGENES.

[The foregoing were crowded out last week.]

#### LIVE STOCK INSURANCE.

The following has been sent to us for publication:—  
"——, F.R.C.V.S."

Dear Sir,—We shall be glad if you will kindly complete the enclosed report form on behalf of our —— branch. Will you kindly ascertain if this is the first foaling, and if not, whether the last foaling was easy and successful and the date thereof? If Mr. —— is known to you perhaps you would also oblige by giving a reference on his behalf.  
Fee 4s.—Yours truly,

LOCAL MANAGER."

REPLY.

Dear Sir,—Mr. —— has left here. I bought his practice some time ago. You don't mean to tell me you expected Mr. ——, F.R.C.V.S., who was a fully qualified professional man, to go out to Widonscroft, four miles, and fill in the enclosed certificate and hold himself responsible, which he would, I believe, and expect a reference of the proposer who is a perfect stranger for the sum of 4s. My fee I make myself—5s. for examination, and 1s. mileage one way.

FAIR PLAY.

P.S.—I do a good deal of insurance and only intend to support the companies who allow a proper fee. I don't have any trouble about the fee with a good company.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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## THE INTERNATIONAL CONGRESS FUND.

Mr. Garnett, the Treasurer of this Fund, was able to report good progress at the last meeting of the Yorkshire V.M.S.

The minimum sum required will be about £3,500; and of this £2,600 has already been promised. This is highly encouraging; but it must not be forgotten that we have now comparatively little time in which to secure the remainder. These Congresses have to be arranged a long time beforehand. The forthcoming one will not be actually held till the summer of 1914; but most of the arrangements for it will be made during the present year, and some, in fact, are already in progress. Obviously, therefore, the financial preparations should be pushed forward as expeditiously as possible; and at least the minimum sum required ought to be ensured to the Treasurer before the end of this year. Members should subscribe at once—either through the Secretary of a local Society, or direct to Mr. Garnett at Dalegarth, Windermere. Considering how very large a proportion of our members have not yet subscribed at all, it is quite clear that the amount still needed can easily be raised, unless our *esprit de corps* is confined to a very small percentage of the profession. Certainly the societies, and comparatively a few members, have set a good example to the rest.

## THE USE AND DANGERS OF ARECOLINE.

Some mention has lately been made of arecoline and its dangers, especially in cattle practice. From time to time such questions arise—questions which mainly affect the clinician, which are of real importance in everyday practice, and concerning which we know something, but not enough.

We know that arecoline, as might be expected from the rapidity and power of its action, is not without danger. We know also that cattle have always been considered particularly sensitive to it. But we do not know either the frequency with which fatalities have occurred after moderate doses, or how far it is possible, by ordinary care, to avoid giving the drug in unsuitable cases. There are no very extensive records of its use in England, though it is certain that some of our members have employed it a great deal. Here we run against an old difficulty—the reluctance of practitioners to communicate their experience. There are men in the country who could give really useful information concerning arecoline, which at present is in the same dubious position as barium chloride. Both are undoubtedly valuable drugs in some cases, and there are good practitioners who have not yet ventured to use either.

## DISCONTINUANCE OF USE OF MALLEIN IN RUSSIAN ARMY.

From Captain N. K. Averill, Military Attaché, St. Petersburg, Russia, January 3, 1913. No. 682. W. C. D. No. 5784-5.

The Assistant of the 1st Senior Quartermaster of the Chief Administration of the General Staff presents his compliments to the Military Attaché at the Embassy of the United States of America and has the honour to inform him that numerous experiments carried out in the Russian Army have proved that when the mallein test was applied to all horses, many healthy horses, who manifested a reaction after mallein were destroyed quite unnecessarily, and therefore, in order to save healthy horses from being killed in vain, the Order No. 120 of the War Department, 1912, was published prohibiting the use of mallein for the testing of horses.

At present it is allowed to apply mallein only to sick horses (cl. 12 of the Instructions, published in Order 197 of the War Department, 1910.)

Besides the above-mentioned experiments which led to the prohibition of applying mallein to all horses without exception, this decision is also founded on the scientific opinions of—

Prof. Damman (Germany) well known hygienist and epizootologist, who on being asked whether mallein might be considered as a sure means of determining the presence of glanders, replied decisively: "No, on no account." He adds moreover, that "experiments carried out in Germany have proved that horses who, after the inoculation of mallein, have suffered an increase of temperature of 2° C. and have, therefore, been recognised as suffering from glanders, when dissected, proved to be perfectly free from this disease, and on the contrary, others, on which mallein exercised no influence at all, or but a slight one, proved to be suffering from glanders."

Prof. Ostertag (Germany) affirms, that "erroneous diagnosis have occurred precisely from the subcutaneous application of mallein."

Prof. Meissner (Germany) asserts, that "mallein is not an absolutely reliable means of determining the presence of glanders; not all horses suffering from this disease manifest a reaction after the injection of mallein, but many healthy horses also manifest a reaction."

Professor Hutyra (Austria) considers that "the destruction of horses for the sole reason that they manifest a reaction after application of mallein is wholly unfounded, as with most horses the disease may be suppressed in its primary stage."

Professor Edelman (Dresden) affirms, that "the destruction of horses on no other grounds than that they manifest a reaction after mallein occasions incalculable losses to agriculture."

Professor Freuner (Germany) acknowledged, that "the subcutaneous application of mallein is of no importance whatever in the establishing of a diagnosis."

Professors Moller and Eichhorn (Washington) assert, that "mallein is not an effective diagnostic means for determining the presence of glanders and, therefore, it cannot be recognised as an indicator of this disease."

Professor Halter (France) points out that "the inoculation of mallein may be applied only in those cases when clinical tests of a sick horse do not establish a definite diagnosis; but in such cases, together with the application of mallein there must also be made inoculations with pathological products, taken from the sick horse, on impressionable animals."

Dr. Martel, Chief Sanitary Veterinary Surgeon, Paris, in stating proofs, thereof, that in France horses are not killed exclusively on the indications obtained in consequence of the application of mallein, says that "out of 700 horses to whom mallein was applied, 350 manifested a reaction after the injections (50 per cent.), but only 54 (12.9 per cent.) had to be killed."

Prof. Perroncito (Italy) does not consider mallein to be a sure means for establishing a diagnosis. According to his opinion, "mallein gives about 20 per cent. erroneous indications, and, therefore, in determining the presence of glanders in a horse the experimental method must be applied (inoculations to smaller animals, bacteriological analysis.)"

#### COMMENT BY MR. HUNTING.

The above remarkable note on mallein appears to be an official fly-sheet issued by the War Office of the U.S.A. For a copy I am indebted to V.S. Hill, of the U.S.A. Field Artillery. No details are given of the Russian experience, and the quotations from Authorities are so brief, and in some cases so dogmatic that they leave little room for comment.

Professor Damman, it is said, was asked "Is mallein a sure test for glanders?" and replied "No, on no account." The value of the answer depends on what was meant by the word *sure*. If it means infallible, nothing more need be said. No one has ever made such a claim for it.

Professor Ostertag affirms that "erroneous diagnosis has occurred from the test of mallein." The Professor may have said this, but I should think he was only stating a fact, without any idea of the use his reply might be put to.

Professor Meissner asserts that mallein "is not an absolutely reliable means of detecting the presence of glanders." Here, again, is an answer to an academic question which has no bearing on the practical value of mallein.

Professor Hutyra considers that "the destruction of horses for the sole reason that they manifest a reaction after application of mallein is wholly unfounded." I wonder what his experience is?

Professor Edelman affirms that—"the destruction of horses on no other grounds than that they manifest a reaction to mallein occasions incalculable losses to agriculture." Incalculable suggests *very great* loss, and I should be glad of his statistics. I quite fail to understand the loss "to agriculture," as everybody knows glanders does not prevail much on farms—it is a disease of towns and armies.

Professor Freuner (*sic*) acknowledges "that the subcutaneous use of mallein is of no importance whatever in the establishment of a diagnosis." This is very positive—more like the expression of a student than of a professor.

Professors Möller and Eichhorn assert "that mallein is not an *effective* diagnostic means." Here again I ask what they mean by effective?

Dr. Martel says that "out of 700 horses to whom mallein was applied, 350 manifested a re-

action but only 54 had to be killed." What is the value of this statement? Who knows the condition of the horses that were not killed?

Prof. Perroncito is of opinion "that mallein gives about 20 per cent. of erroneous indications." I should like the facts upon which this estimate is based.

I do not merely venture to give an opposing opinion to the curt statements of these authorities, but I offer the experience gained in London in an organised effort to stamp out the disease.

On January 1st, 1908, the Glanders Order came into force, and since then every case of glanders discovered in London has been slaughtered and examined post-mortem. The appearance of a clinical case of the disease in a stable has always been followed by the application of the mallein test to every horse in the stables, and many stables contained over 1,000 horses. Before the Order was issued there were 30 cases of disease every week, now there are about two, and in some weeks we have had none. Practically we may claim to have stamped out the disease, and whatever the methods adopted they have proved useful and effective. Every clinical case was slaughtered at once. Every horse killed on a mallein reaction alone was examined post-mortem and the owner invited to attend or send his veterinary surgeon to see if lesions of glanders were present.

Since the present Glanders Order came into force over 49,000 horses have been tested with mallein and every reactor slaughtered. About 3,000 horses reacted, and in only a dozen of these have characteristic lesions not been found. These figures are obtained by very careful work done under the Order of the Board of Agriculture and administered by the London County Council, who had to pay compensation for every case killed—including full value for every horse where no disease could be detected on autopsy.

I venture to think these facts are sufficient excuse for my disagreeing with the statements in the fly-sheet above. It may be that as large an experience as this is enjoyed by the learned professors quoted as authorities, but I cannot think so, and I should advise no one to neglect the use of mallein. In London we could not have arrived where we are without it.

WILLIAM HUNTING, F.R.C.V.S.,  
late Chief Vety. Inspector to the L.C.C.

#### PLEURITIC EFFUSION.

In view of the widespread interest that has been taken in Major E. E. Martin's able and instructive article on the treatment of pleuritic effusions, the following notes may be of some slight interest to the profession.

*Subject*.—Artillery draught gelding, aged six, in good condition.

*Symptoms*.—February 7th. Admitted to Infirmary, temperature 105.8, pulse 50, full and bounding; respiration 24. No diminution noticeable in appetite. Membranes slightly injected; auscultation

revealed some increased sounds in the bronchial area.

*Treatment.*—Placed in loose box with door and window fastened open. Mustard to both sides of chest for thirty minutes. Internally, Sodii salyc. and Ammon. carb. balls alternately every four hours. Salines in drinking water.

Feb. 8th.—Temperature 105.2, pulse 62, respiration 26. Still feeding well; no change found on auscultation.

Feb. 9th.—Temperature declining slightly (104.4), otherwise unchanged.

Feb. 11th.—Respirations rather more laboured. Mustard repeated.

Feb. 13th.—Temperature remains high. Area of roughened breathing appears to be extending and *râles* can be detected. Cannot distinguish presence of fluid, but respiratory distress and acute knowledge of my limitations in the way of accurate auscultation decided me to try "tapping." This was done on the right side, but without any result.

Feb. 15th.—Temperature gradually declining and is now 102. Respiration easier and only slightly hurried (22).

Feb. 16th.—Temperature 102.8. Auscultation reveals no evidence of any change in respiratory sounds. Breathing rather laboured. This evening animal refuses food.

17th Battery R.F.A. No. 68713. *Disease*—Pneumonia Ulcer, Pleurisy. Cured. Feb. 26th. *Station*—Hilsea.

1913.	Temp.		Pulse.		Resp.	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Feb. 7. (a)	105.8	105.3	50	56	24	30
8	105.1	104.8	62	64	26	28
9	104.4	103.6	54	58	24	30
10	103.9	104.8	60	62	24	26
11 (b)	104.6	104.2	54	58	20	26
12	104.6	104.3	50	48	28	32
13 (c)	104.3	103.3	56	50	30	24
14	102.6	102.2	46	50	26	30
15	102.2	102	48	56	22	24
16	102.7	102.9	60	64	24	30
17 (d)	104.1	102.9	72	60	60	40
18	100.9	100.9	48	46	18	20
19	100.9	99.6	46	44	19	16
20	100.9	100.8	47	44	20	18
21	101.1	101.1	50	48	22	22
22	100.4	100.9	48	44	20	16
23	101.1	100.2	46	48	18	20
24	100.2	100.6	46	44	20	16
25	100.8	100.7	44	46	16	18
26	100.9	100.9	48	44	16	20

(a) Mustard to sides, Sod. Sal. and Ammon. Carb.

(b) Repeat Mustard.

(c) "Tap" chest: no result.

(d) Tapping removes 53 pints fluid.

Feb. 17th.—Temp. 104.2, pulse 72, weak and thready, and almost imperceptible at jaw. Respirations 60. Animal is greatly distressed, head and neck extended, nostrils widely dilated, corners of mouth drawn back, and general appearance of great pain; extremities cold. Fluid easily detected

in thorax. Administered Ether meth. subcutaneously, and after a short interval tapped the chest, resulting in the removal of 52 pints 18 ozs. of fluid. When this amount had been removed—it took over an hour to do so—the horse became very exhausted, and I decided to leave what little fluid was left still remaining. Two hours later respirations were 40, and animal has fed. That evening temperature was 103, respirations 40, pulse 60 and improving in tone.

Feb. 18th.—Temp. 101, pulse 48, respirations 18.

Feb. 27th.—Animal has gradually returned to normal, and is now well on the way to recovery.

There are two points which have proved interesting to me in this case:

(1) Although I have seen many horses tapped, both at Bulford Camp, where I was working under Major Martin, and elsewhere, I have never seen so much fluid removed from an acute case.

(2) It forces the lesson upon me once more that these effusions do not take long to form, in fact that a very large amount may collect in a very few hours, teaching one the necessity of careful, and, at least, daily auscultation. It would, perhaps, here have been more striking if I had not been content with auscultation but had tapped on the 16th.

I remember a similar case which I had care of at Bulford Camp in which, as far as my memory serves me, I did tap without success one afternoon about 4 p.m., and yet removed somewhere about 25 to 30 pints on the following day at 11 a.m.

R. FERGUSON STIRLING, F.R.C.V.S., Lt. A.V.C.

## ABSTRACTS FROM FOREIGN JOURNALS

### A FILARIA OF THE CAMEL.

Prof. Antonio Pricolo, a veterinary officer attached to the military bacteriological laboratory at Tripoli, has there found the embryos of filariæ in the blood of camels which had come from Tunis and Erythræa. The embryos are from 250 to 298 microns long, and have rounded heads and curved pointed tails. They show lively body movements, constantly turning the head alternately to the right and left, and writhing and twisting; but they do not move rapidly from place to place. The cuticle is very refractile, and the protoplasm is granular. They are only present in moderate numbers in the blood, and even seem to disappear from the peripheral circulation during the day. Camels harbouring them showed a high degree of anæmia, hydræmia, and emaciation.

More recently, Pricolo has found the worm in the adult state in the small branches of the pulmonary and great testicular artery of the camel. They settle in vessels of small calibre, which present aneurysmal dilatations at the points of lodgment of the worms, and the parasites are found, either singly or two or three together, coiled up in these dilatations.

In time the aneurysmal swellings indurate into hard nodules and finally calcify, and Pricolo, having studied these nodules in all stages of their develop-

ment and discovered remains of parasites in those in which induration was proceeding, concludes that the completely calcareous nodules, in which no trace of a parasite is demonstrable, are also of parasitic origin. Similar nodules were also found in the testicles, lungs, liver, and in the wall of the small intestine.

As a proof of the relationship between the embryos circulating in the blood and the adult worms, Pricolo cites the discovery, in one subject, of adult worms in the testicles and embryos in the circulating blood.

The testicles containing the worms and nodules preserve their normal shape, but are somewhat increased in size, are augmented in consistence, and are white in colour. Their parenchyma is suppressed, and they are composed solely of connective tissue. Histologically, the vessels are found to be dilated, and are often encircled by some concentric rings of stratified and very firm connective tissue. These stratified masses, however, are small and only found here and there amidst the rest of the connective tissue, which is pearly white, and shows a varying disposition of its fibres.

Pricolo gives a detailed description of the adult worms, the following being the most important points. They are flesh-coloured, but become pearly after washing. A male and female are distinguished. The female has the appearance of a thick thread of suture silk, or an analogous thread of catgut, is about 22 centimetres long and about 665 microns thick. The head, about 140 microns broad, has a circular mouth without papillæ; it is suddenly constricted to form a neck about 117 microns long and thinner than the head, then the thickness gradually augments, and the body, in which the ovaries are visible, commences. The tail terminates abruptly, and differs essentially from that of the male. The ovaries contain thousands of cells in various stages of development. The ovarian cells are polygonal in outline, and vary little in length, which averages about 30 microns, but they are extremely variable as regards breadth, which may oscillate between 11 and 20 microns. The ova are oval in outline, and contain embryos in various stages of development. The single ovum, contained in an envelope, is about 32 microns long and 12 to 16 microns broad. The embryo, curled upon itself, forms three segments joined by two angles or curves; if there are four segments the number of curves is three.

The male worm has the appearance of a silk suture thread of medium calibre or an analogous thread of catgut. Length 8 to 12 centimetres, thickness about 300 microns. The head, about 105 microns broad, is separated from the body by a short neck. The body is about 160 microns thick at its commencement, gradually increases conically, then becomes cylindrical and attains a maximum thickness of 350 microns. At about three-quarters of its length it ceases to be regularly cylindrical, and gradually becomes smaller till, about a centimetre before the caudal extremity, it only reaches a thickness of about 80 microns. The caudal extremity itself is very slender, and presents three curves.

Many camels harbouring these filariæ died, but it is not easy to say at present how much influence the worms had in causing death, as many and varied other factors may have influenced it.—(*La Clinica Vét.*).

W. R. C.

#### INTERESTING CASE OF PNEUMOTHORAX IN A COW FROM ECHINOCOCCUS IN THE LUNG.

A cow had been ailing for a fortnight, she was dull, with loss of appetite and milk, there was subcutaneous emphysema in the region of the right shoulder. Examination of the lungs revealed pneumo-thorax on the right side, with a hole between the 8th and 9th ribs, and a similar hole near the right kidney; the skin was sound over both, which appeared to have existed some time. Two weeks later, the day before slaughter, the subcutaneous emphysema had spread over the whole body. The right lung produced no respiratory sounds, the left lung appeared to be normal. Temperature was 38.4 C.

Post-mortem revealed a large air bladder near the kidneys, especially on the right side, the kidney fat was filled with air, which had penetrated its whole structure. There was no sharp body among the organs which could have caused the holes, but in the lungs there were some echinococcus cysts, one of which on the right had ruptured, it was on the edge of the lung and when one squeezed the lung air came from the cyst, which acted as a bellows valve and forced the air through the hole between the ribs, filled the subcutaneous tissue and kidney fat. The case appears to be unique,—(N. Foss, Ufa, Russia)

Trans. ex Esperanto F. E. P.

#### LINCOLNSHIRE AND DISTRICT VETERINARY MEDICAL SOCIETY.

The 31st annual meeting was held at the "George" Hotel, Grantham, on Thursday, Feb. 13, the President, Mr. H. H. Truman, M.R.C.V.S., of March, in the chair. There were also present: Messrs. W. W. Grasby, Daven-try, Vice-president; F. L. Gooch, Stamford; C. Hartley, senr., C. Hartley, jun., Lincoln; T. Hicks, A. D. Lalor, Sleaford; A. R. Routledge, Louth; T. A. Rudkin and F. H. Sugden, Grantham; C. W. Townsend, Long Stanton, hon. sec.; and Mr. Jas. Smith, Wetherby, a visitor.

Letters of apology for absence were received from Messrs. Alex. McTurk, T. B. Bindloss, R. W. Knowles, J. F. Bingham, A. C. Comerford, F. Hobday, G. T. Willows, and S. G. Masterman.

The minutes were taken as read.

It was decided, on the motion of Mr. Gooch, seconded by Mr. Routledge, to give a donation of two guineas to the Victoria Veterinary Benevolent Fund.

#### THE INTERNATIONAL CONGRESS.

MR. HON. SEC. said he had received several letters with regard to the International Congress to be held in London in 1914. He had sent out letters to all members, in accordance with the wish expressed at a previous meeting, asking for donations to the expenses of the

Congress, but he had had very few replies, he was sorry to say. The President had sent a donation, and several other members had promised various sums. It was a most important matter, and he hoped the Society would not be lacking in giving subscriptions.

The PRESIDENT said they were all aware of the need of financially supporting the Congress. They owed a debt of gratitude to Sir Stewart Stockman for his kindness in coming down to give them a demonstration in the summer, and also for taking them over his laboratory in London in the autumn, and as he took so much interest in the Congress—much of the work of which would devolve upon him—they ought to do their level best individually to help it, as much for Sir Stewart Stockman as for the benefit of the profession. He had sent five guineas, and he hoped they would all do something. He hoped they would also make a donation from the surplus funds of the Association. He did not think it necessary for them to hoard money, and if they kept a working balance it was all that was wanted.

Mr. GOOCH said it was not a national but an international matter, and for the credit of the Association they should support the Congress. He had promised ten guineas spread over three years. Mr. Garnett said he still wanted £800 for this year, and he would like promises that would be payable before the end of 1914. The organising committee were anxious that members should do all they could for 1912-13, so that if in 1914 £3,500 had not been raised, pressure could be put upon the various societies. If they could raise the money from individual members in three years that would not be necessary. They wanted to accord to their foreign *confrères* the same hospitality they received when the Congress was held abroad. He thought that they need not make a grant from the Association until the annual meeting of 1914, when they would know how much of the necessary £3,500 had been raised.

Mr. RUDKIN: Have other societies subscribed?

The HON. SEC.: Yes, the Eastern and the Southern, and the Royal Counties. Lists have been published. We have only four names from members of our Society, but I think that some of our members belonging to other societies have subscribed through them.

Mr. GOOCH: Mine has been put down as paid to the Midland through the Lincolnshire Society.

The PRESIDENT said it would be helpful to the Treasurer if members would notify the amounts they were prepared to give. The sum could be split into annual payments.

Mr. GRASBY agreed with Mr. Gooch that they should leave the question of a donation from the Association until the next annual meeting. There were many practitioners who did not belong to any association, and he thought the Congress should be supported by every veterinary surgeon in the kingdom, whether they belonged to a society or not. He thought there were very few but would send something.

Several of the members present promised donations, and it was decided to leave the question of making a grant from the funds of the Association to the next annual meeting, the Hon. Sec. to write Mr. Garnett to that effect.

#### VETERINARY INSPECTORS' FEES.

The circular letter was read from the Secretary of the Southern Branch of the N. V. A. with regard to the proposed scale of fees payable by the local authorities to veterinary inspectors.

The PRESIDENT hoped that effective action would be taken. The fees in Cambridgeshire and Isle of Ely were about the lowest of any County Councils.

Mr. GRASBY: This suggested uniform scale will come before the National.

Mr. GOOCH: Yes, nothing will be done before the National meeting. We took five hours over it at the

Council meeting in London, and readjusted the fees. The form you have before you is an amended scale sent out by the National Association, who will take the incubus of the work on their own shoulders, consult the different societies, and demand these fees from the County Councils. If they are not conceded the members of the National will decline their services.

The PRESIDENT: Compared with what I get this scale of fees makes my mouth water. (Laughter).

Mr. GRASBY said if the proposed scale was uniformly adopted it would bring joy to the heart of the veterinary inspector, who had been paid like a mechanic. He moved that they pledge themselves to support the new scale of fees as suggested by the Council of the National Association.

Mr. ROUTLEDGE seconded, and said he recently had to look over 20 animals for the Lindsey County Council, who offered him a guinea for a day's work, which he refused to take.

Mr. GRASBY said it was difficult to fix a scale in cases of foot-and-mouth disease. Half-a-guinea would not pay a veterinary surgeon to look over 200 or 300 head of cattle. But they were generally in bunches of ten.

Mr. ROUTLEDGE said the Councillors told him "The remedy is in your own hands. We know you are not being paid sufficiently. If you tell us what you want we will pay more."

Mr. GOOCH: This scale does not apply to Anthrax, but to ordinary disease.

The resolution was carried, the Hon. Sec. to forward it to the Council.

#### ORGANISATION.

Mr. Theo. C. Toope, the Secretary of the Southern Branch of the N. V. A., wrote asking for a list of paying and honorary members, and stating that he hoped to attend a meeting of the Association as he was now visiting various societies in his branch with a view of getting in closer touch with his various branches.

The request was granted.

#### INSURANCE CLAIMS.

A letter from the South-Eastern Association was read re the fees payable by the Insurance Companies to veterinary surgeons, but as sufficient time was not at the disposal of the members that afternoon it was proposed by Mr. Grasby, seconded by Mr. Rudkin, that discussion on this should be postponed until next meeting.

#### ROYAL SANITARY INSTITUTE.

A letter asking for delegates to be appointed to the Sanitary Conference at Exeter on July 7 to 12 evoked no response from members, and it was agreed it was too far away.

#### NEW MEMBER.

Mr. A. J. HINES was nominated by Mr. Routledge, seconded by Mr. Rudkin, and duly elected a member.

#### ANNUAL REPORT.

The HON. SEC. said that as there were so many items on the agenda for consideration he thought that it would suffice if this year the members would excuse a lengthy report. He would, however, like to congratulate our President upon the highly successful year which the Society had had under his presidency, the meetings had been much better attended than they had been for some time, and he hoped they would continue. They had also augmented their list of members which now numbered fifty. In the balance sheet they could see that the Society was in a fairly sound financial position.

The TREASURER (Mr. Townsend) presented the balance sheet. At the beginning of 1912 the balance in hand was £23 3s. 11d. as against £20 6s. in 1911. At the present time it was £23 14s. 9d., but since the pass book had been made up, the sum of £8 12s. 6d. for late



subscriptions had been paid in, and a further amount of £6 10s. had been received, which brought the total balance up to nearly £40.

Mr. LOCKWOOD: The Treasurer has in my opinion done excellently.

On the motion of Mr. Gooch, seconded by Mr. Rudkin, the balance sheet, which had been audited, was adopted.

The TREASURER remarked that a cheque for 3/6 paid in April 24, 1911 to Mr. Bullock for a new register had not been passed through the Bank, though he had the receipt for it. Mr. Bullock had, however, written to say that he had been paid the cheque through the National and Provincial Bank, the loss was therefore our own bankers.

#### ELECTION OF OFFICERS.

Mr. F. L. GOOCH said he had the honour of proposing as their President for the ensuing year an old member of that Society who had done a lot of work for them for several years, viz., their Secretary, Mr. Townsend. (Applause). He had not previously consulted Mr. Townsend, but if he would take the office there was another gentleman who would relieve him of the secretarial duties during the next 12 months.

Mr. RUDKIN had very great pleasure in seconding. He did not think anyone had taken half the interest in the Association that Mr. Townsend had in the last few years.

Mr. W. W. GRASBY, in supporting, re-echoed all that had been said of an esteemed and hard-working officer, and

Mr. GEO. LOCKWOOD agreed that it was all they could do to recognise the efforts of one who had taken such an interest in the Association and its members.

The resolution was carried unanimously.

Mr. TOWNSEND, in returning thanks for his election as President, said that this honour had come upon him as a great surprise. He had no idea when he came into the room that afternoon that they were going to ask him to take such an important office. He was rather young, perhaps, to fulfil it, but he could assure them that he should do all in his power in the future as he had done in the past to make the Association a success. Anything he had done for the Society in the past he could assure them had given him great pleasure, and he once more thanked them for the great honour they had conferred upon him. (Applause).

*Vice-presidents.*—Mr. W. W. Grasby, Mr. T. Holmes, and Mr. H. H. Truman were elected, on the proposition of Mr. Lockwood, seconded by Mr. Rudkin.

*Hon. Sec.*—Mr. Gooch said he had asked Mr. Tom Hicks, of Sleaford, to act as secretary for the year and he had consented. He was sure Mr. Hicks would do them credit, and he had great pleasure in proposing him for the office.

Mr. LOCKWOOD, in seconding, said he was sure Mr. Hicks would do his utmost to instil into the members that interest which Mr. Townsend had gone to such trouble to enthuse, and he hoped they would have good meetings and good attendance under Mr. Hicks' secretaryship as they had under their new President's. The motion was carried.

Mr. HICKS, in thanking the members, said he felt he should make a very indifferent secretary after Mr. Townsend, but all he could say was that he would do his level best.

*Auditors.*—Mr. Rudkin and Mr. Sugden were re-appointed.

#### THE ANÆSTHETICS BILL.

Mr. GOOCH, who was called upon to open a discussion on the new Anæsthetics Bill, remarked that there was not much to be said, because he did not think the bill would ever become law. Most of them had no doubt

read the bill which had appeared in *The Record* for August 3 last year, since then many letters had been published in the veterinary papers (including some from their secretary, who had also written to members of Parliament on the matter), some letters were for and some against. The main discussion had been about castration. But as a profession they would be the last to allow any unnecessary cruelty among the domesticated animals they were called on to operate upon or to treat. The bill had evidently been drafted by someone who did not understand comparative surgery or the work of the veterinary profession, and it contained clauses with which they could not agree. Why was not the Royal College of Veterinary Surgeons consulted before it was brought before Parliament, and why was the Board of Agriculture the body selected to alter or add to the Bill as stated in Section 3, also consulted. If the Bill was carried the Board might dictate to the profession as to what operation the veterinary surgeon was to use an anæsthetic. According to Clause 2 of Section 1 of the Bill "A horse . . . or pig . . . shall not be subjected to any operation specified in the Second Schedule or the Act, unless the animal during the whole of the operation is under the influence of some general anæsthetic of sufficient power to prevent the animal feeling pain." He for one objected to that. Castration could not be carried out if the standing operation was performed, and for some of the operations included he was of opinion that the animal suffered more from shock during the exciting stages of the anæsthetic than from the operation itself. Then again under the same Clause "No bull or pig shall be subjected to an operation for castration after the age of six months, unless the operation is performed for the purpose of curing or alleviating some disease or the effect of some accident. (Laughter). Many veterinary surgeons were called upon to operate after that age, particularly if they had made a study of shorthorns. Many were kept until eight months old, but in that case they were not to operate and the animal must be kept entire or until he could be fattened for the butcher. (A Member: "Or his age forgotten"). He objected to operations for poll evil, fistulous withers, and line firing being included in the schedule. He had spoken to several Members of Parliament, who said the Bill would never pass, but if there was a likelihood of it doing so they should raise a strong protest against it.

Mr. TOWNSEND said they had no doubt seen and read the letters which he had written to *The Record* on the matter, and all he should like to say was that personally his great reason for opposing the Bill was that it was in his opinion a great insult to the profession as a whole. The Bill had been introduced by men who knew nothing about veterinary surgery or operations, and who sought to dictate to them as to what operations they should perform under chloroform and what operations they should not; as in the case of stripping the sole, fistulous withers, and castration of the bull or pig. He had written to a Liberal member on the subject and also to his Conservative opponent. The Hon. E. S. Montagu assured him that the Bill was not a government measure and there was no likelihood of it becoming law this Session. Mr. Douglas Newton said it had been read a first time and would be dropped, but he asked to be kept advised in the matter.

The PRESIDENT said that the Bill being practically dead they need not discuss it.

Mr. RUDKIN agreed. He was a great believer in anæsthetics, but he did not want to be dictated to when to use them or not. (Hear, hear).

Mr. GOOCH proposed that no action be taken. The Parliamentary Committee would look after it if the Bill was ever introduced again.

The matter then dropped.



## INSTRUMENTS.

Mr. TOWNSEND brought forward a suggestion that the Society should add to its stock of instruments, remarking that those required for dentition were most in demand by members.

Mr. GOOCH renewed an offer he made at Peterborough to lend any member an instrument of his own design to remove small prominences from the end of the last molar.

The PRESIDENT said Americans made a feature of dentition, and promised to get catalogues from prominent instrument makers in the States, and bring them to the next meeting for members to see.

It was agreed to adjourn the matter to the next meeting.

## SIR STEWART STOCKMAN CONGRATULATED.

The PRESIDENT (Mr. H. H. Truman) said that early in the new year Mr. Stewart Stockman, who was so kind to them last summer, and again in the autumn, had the honour of knighthood conferred upon him by His Majesty the King, and he thought before they dispersed that afternoon they should tender to him their hearty congratulations. They took a personal interest in him, for he was their latest honorary member, and the honour bestowed upon him was reflected on their Society and on the whole of the profession. He proposed "That the congratulation of the Society be sent to Sir Stewart Stockman on the honour of Knighthood he has received from His Majesty." (Applause).

Mr. F. L. GOOCH had great pleasure in seconding, for Sir Stewart had earned his honour. He was a young practitioner, but he had done great work in this country and abroad, and no man had done more to advance and enhance the veterinary profession. (Applause).

Mr. RUDKIN supported, and said Sir Stewart deserved their thanks for the kindness he had shown the Society. (Hear, hear).

The motion was carried with acclamation.

## SPECIMENS.

Mr. Routledge produced two very interesting pathological specimens.

I. Rupture of the Flexor Perforans tendon following median neurectomy and also exhibited photographs to illustrate the characteristic posture of the limb.

The subject was an aged hunting mare so lame from old standing navicular disease that she was incapable of doing any work, the operation enabled her to go back to her usual employment practically sound, in fact she was now going better than she had done for years, the owner being quite delighted with the result. About six months later she was left in the harvest field unattended, something startled her and she galloped away, and pulled up on three legs, the fetlock sinking to the ground, and the toe cocking up when weight was put on the limb. She was shot; the specimen shows clearly the rupture in the usual position in the hollow of the heel, and well-marked navicular disease.

II. A specimen of what Mr. Hunting calls suffraginitis, from the near fore fetlock of a hunter, remarking that they were very unsatisfactory cases to treat. This horse had been fired and blistered, but kindly settled the question as to whether it would stand work by dying from suppuration in the throat.

Time being too short for a discussion on a paper on "Mastitis in Cows," by Mr. Lockwood, he agreed to postpone its reading until the next meeting at Peterborough in June.

A hearty vote of thanks to the retiring President was proposed by Mr. Rudkin and Mr. Townsend, the President elect, in seconding, thanked Mr. Truman for the great interest he had shown in the Society, in the midst of his many duties, and said that the prediction which

he made when he had the pleasure of proposing him as their President, viz.—that if they elected Mr. Truman as their President he would do credit to that Society, a prediction which he felt sure had been amply justified for they had not only had a most successful year but excellent meetings. (Applause).

Mr. TRUMAN, in reply, said his heart was in the work of the Society, and with the kind help of the secretary, and their sympathetic support, he thought they had had a fairly successful year, the attendance at the meetings having been good, thanks to Sir Stewart Stockman. He felt sure Mr. Townsend would do as good work in the presidential office as he had done in that of secretary.

The members then adjourned to a *recherché* little repast.

C. W. TOWNSEND, Hon. Sec.

EASTERN COUNTIES  
VETERINARY MEDICAL SOCIETY.

The annual meeting was held at the Bell Hotel, Norwich, on Tuesday, February 11th. In the absence through indisposition of the President, Mr. E. H. Leach, Mr. T. G. Heatley, Woodbridge, was voted to the Chair. Amongst those present were Messrs. J. E. Kitchin, London; H. V. Low, Norwich; Arthur Holl, New Buckenham; F. B. O. Taylor, Weston; Wm. Shipley, W. L. Little, Yarmouth; H. Buckingham, Norwich; M. Bray, Docking; John Barr, Acle; B. W. Bloomfield, Watton; E. Margaron, Swaffham; T. E. Auger, Wymondham; J. J. Scott, Colchester; William Turtill, Wickham Market; H. E. Wilkinson, Martham; F. Morton Wallis, Halstead; J. K. Gooch, Holt; W. W. Kerr, East Dereham; G. McIntyre, Beccles; W. M. Reeman, Bury; J. R. Godbolt, Stowmarket; J. Bee, Fakenham; T. E. Barcham, North Walsham; A. Mc-Turk, Swaffham; A. Holl, jun., New Buckenham; Sydney Smith, jun., Lowestoft, hon. sec. and treasurer; and the following visitors: Messrs. G. Wake, Dereham; Rattee, Fundenhall; Griffiths, Feltwell.

Letters of apology for absence were read from Sir John M'Fadyean, and Messrs. E. H. Leach, N. Almond, F. L. Gooch, F. T. G. Hobday, Wm. Bower, Philip Turner, J. Cleveland, Jas. F. Thurston, C. C. Nesling, W. E. Livock, E. A. Hudson, H. F. Downe, R. B. Palmer, T. Faithfull Davies, Sydney Smith, sen., D. S. Jack, and A. F. Castle.

The HON. SEC. presented the minutes of the last meeting, which were taken as read.

Messrs. T. F. DAVIES and A. HOLL were duly elected members.

Mr. GRIFFITHS, of Feltwell, was nominated for membership.

Mr. MORTON WALLIS asked the support of the members for Mr. and Mrs. George Perrett, of Great Easton, Dunmow, and late of New House Farm, Debden, who seek aid from the Royal Agricultural Benevolent Institution.

The HON. SEC. read a letter from Mr. Wallace Kerr, of Dereham, resigning his membership on account of the difficulty of attending the meetings.

Mr. MORTON WALLIS said if all members who were in the same position resigned, there would be none left.

The HON. SEC. presented the annual report and balance-sheet. The latter showed a balance in hand of £22 13s. The report described the past year as one of misfortune to the Society generally. In the first place they sustained a very great loss by the accident that happened to their President as he was returning home from the meeting on the very day he was elected, twelve months ago, in consequence of which he was unable to attend any of the meetings of the Society during the

year. He had written as follows from his home in Newmarket:—

"Dear Mr. Smith,—I am very sorry that I shall not be able to attend the meeting to-morrow. I am still on crutches and have great trouble in getting about. I hope, however, that you will have a good and profitable meeting and will be able to elect a president who will be of more use to the Society than I have been. Kindly tender my apologies to the members for my unavoidable absence at your meetings during the past year, and yourself accept my best thanks for the trouble you have taken on my behalf."

They, of course, very much regretted the illness of the President and his absence, but they were sure his best wishes were with them. The next misfortune was the summer meeting, which was a fiasco—probably because of the injudicious choice of a place. Sufficient members did not turn up to form a quorum. The autumn meeting was also badly attended—probably because the date was not a suitable one. A great many members who promised to attend did not turn up. Last year he was able to report that every subscription had been paid. This year at the beginning of that meeting three subscriptions were outstanding, but two had since been paid, so that only one remained due. At the last annual meeting Mr. Wm. Hunting read a very instructive paper on "Some Joint Diseases of the Horse," and at the autumn meeting Mr. McTurk sent an interesting paper on "Some Untoward Sequelæ of Parturition in the Mare and Cow."

At the last meeting he (the Hon. Sec.) invited the members to support the International Veterinary Congress, and subsequently he sent out written communications to them, as a result of which over £200 had been promised. He was deeply grateful to the members who responded to his appeal, for the list of names compared very favourably with that of any other Society.

There were four new members of the Eastern Counties Society, and they had lost one by death—Mr. Edward Wright, of Yoxford—to whose relatives a vote of condolence had been sent.

The balance-sheet was a fairly favourable one, although they had contributed ten guineas to the International Veterinary Congress—the first contribution towards a grant of thirty guineas. The balance in hand was only £2 14s. 8d. less than last year.

He had obtained a box and strap for the new shears. During the past year the Society's instruments had been out on 22 occasions, and he appealed to members who made use of them to return them clean—a thing they did not always do.

He appealed to members to pay their subscriptions promptly, as the neglect to do so involved much letter writing. Last year he wrote 419 letters, and that ought not to have been necessary. Another point he had to complain about was the delay in answering his communications, which often involved him in difficulties in making arrangements for meetings.

#### ELECTION OF OFFICERS.

The following members were elected officers for the ensuing year:—

*President.*—Mr. F. B. O. Taylor, Weston.

*Vice-Presidents.*—Mr. T. G. Heatley Mr. W. L. Little, and Mr. E. H. Leach were elected.

*Committee.*—Messrs. Sydney Smith, sen., T. E. Auger, J. K. Gooch, J. Barr, H. P. Standley, and H. Low were re-elected, and Mr. W. Waters was added to their number.

*Auditors.*—Mr. W. Shipley and Mr. W. M. Reeman were re-elected.

*Hon. Sec. and Treas.*—Mr. Sidney Smith, jun., was again elected.

Mr. Morton Wallis, Mr. T. G. Heatley, and the Hon.

Secretary were elected to represent the Society on the Council of the National Veterinary Association.

#### VICTORIA VETERINARY BENEVOLENT FUND.

Mr. SHIPLEY said that hitherto the Society had granted two or three guineas to the Fund, but other Societies gave more, and he would be glad if the Eastern Counties Society increased their grant this year. The widows of two veterinary surgeons, who were friends of those present, were receiving benefit from the Fund, without which, he supposed, they would be in the work-house. Since last January he had had four fresh applications for relief—two from practitioners who through bad luck and ill-health had been thrown on their beam ends, and one from the daughter of a veterinary surgeon and another from a widow. All these wanted help, but the Fund had not got the money to give them. He was certain if only the members of the Society knew the amount of distress the Fund relieved, they would be only too glad to back it up. He wished to thank the members of the profession in the Eastern Counties for the way they had supported the Fund, and he hoped they would give it increased help. He begged of them to give as much money as they could afford, for there was urgent need for it.

Mr. BARCHAM moved that the Society contribute five guineas this year. They had, he said, a nice balance in hand, and were not likely to require it for anything else.

The Hon. Sec. pointed out that they had two sums of ten guineas each to pay to the Veterinary Congress. After they had cleared that off they could, perhaps, afford to launch out, but meanwhile they ought to be careful.

Mr. BEE seconded the proposition to give five guineas, and it was carried.

The Hon. Sec. reported that although he was elected a delegate to the Royal Sanitary Institute Congress held at York last year he was unable to attend. This year the Congress would be held at Exeter, and it was for that meeting to say whether it was worth while being represented at it. The delegate's fee was one guinea.

After discussion, it was decided not to send a representative this year.

#### COUNCIL ELECTION, R.C.V.S.

The Hon. Sec. said that in previous years they had joined with other Societies and pooled the expenses. The Eastern Counties Society paid £2 4s. a year as their share of the expenses. He proposed that they proceed as in previous years.

Mr. AUGER seconded.

The Hon. Sec. announced that Mr. Shipley came up for election on this occasion. He did not know whether there was anything they could do to make his election absolutely certain.

Mr. SHIPLEY said he would be very glad of all the support he could get. One did not go in for an election with the idea of losing. If they felt he represented their opinions on the Council he would be glad of their support and help. It was a bit of a hard tussle for a man to get in on his own.

#### INSPECTORSHIP FEES.

Mr. SHIPLEY raised the question of fees payable to veterinary inspectors under the Contagious Diseases (Animals) Acts in Norfolk, and said the National Veterinary Association were making a serious attempt to raise the fees. The inspectors had held a meeting that afternoon and had decided to form a little Association or Committee so that they might keep more in touch with each other, and that there should be more co-ordination in their action. It was desirable that they should take an early opportunity of appealing to

the County Council to recognise the responsible work inspectors had to carry out for what they considered ridiculously small fees. He felt sure if the County Council understood the matter they would consider an application. The inspectors under the Acts felt they would like the support in this matter of all the veterinary surgeons in Norfolk. A Committee had been appointed, and they would like the President of the Eastern Counties Society to be Chairman year by year. As soon as any definite plan of campaign had been adopted it would be communicated to the Society for approval. In the meantime the inspectors asked all the veterinary surgeons in the county to support them in what they considered to be their just and lawful demands. (Hear, hear).

Mr. BUCKINGHAM thought every veterinary surgeon who was not an inspector should receive a copy of the Acts under which the inspectors worked, and that veterinary surgeons who were not inspectors should receive more than 2/6 for reporting a case of contagious disease.

The CHAIRMAN: I take it you will send out a circular?

Mr. SHIPLEY: Yes.

The CHAIRMAN: Then I think there is nothing further to be done at present.

The HON. SEC. said he had been requested by Mr. T. C. Toope, the Secretary of the South Eastern Veterinary Association, to ask the Eastern Counties Society to pass a resolution on the subject of the fees paid to veterinary surgeons for inspecting animals for insurance companies. Mr. Toope wrote, enclosing a scale that had been adopted, and saying that he believed it would be enforced in Kent, or veterinary surgeons would refuse service altogether.

Mr. SHIPLEY thought the subject a very important one, and one that ought to be discussed fully.

Mr. MORTON WALLIS thought the fees named were reasonable. He had been an inspector for one society for a good many years and though their fees were small, yet on special occasions when he had made representations to them they had always met him fairly. He had found that the insurance companies were willing to meet the veterinary surgeons fairly.

The CHAIRMAN said in his opinion the scale of fees issued by the South Eastern Association was quite big enough, because very often veterinary surgeons could fit one job in with another, and if they got 1/- a mile they might make their fees less. Insurance companies did not charge a very high rate, and he did not think they could afford to pay the scale of fees proposed. At the same time he thought the fees ought to be higher than they now were.

Mr. LITTLE said if the fees were greater than the insurance companies could afford to pay, no doubt the insurance companies would put the burden on the insurers.

Mr. BUCKINGHAM thought that in that case there would be more difficulty in recovering the fees.

Mr. Low said if they made their fees too high it might answer the purpose of the insurance companies to have a veterinary surgeon of their own permanently engaged.

Mr. LITTLE did not think it would be practicable.

Mr. BUCKINGHAM said that even now they employed unqualified men or men who were not registered. He could mention two cases.

On the motion of Mr. Wallis a motion was passed "That the action of the South Eastern Veterinary Association be supported, and that they be requested to refer the matter to the National Association."

It was agreed to hold the next meeting at Ipswich, Mr. A. F. Castle having offered to read a paper on "Sterility."

#### SPECIMENS AND CASES.

Mr. McTURK produced a navicular bone from a cart horse showing advanced navicular disease. It was not, he said, very common in cart horses.

Mr. WALLIS mentioned a case of a hound bitch which was run over by a motor car. It was in perfectly good health, and there was apparently nothing the matter with it. There was some stiffness which he considered muscular, but next morning it would not get up. He lifted it up and it walked away perfectly sound. It became worse, and next morning was found dead. A post-mortem showed double intussusception of the bowel. He had seen many cases of single intussusception, and eighteen inches of gut in one case was intussuscepted, and in other cases over one foot. He could not account for the present case in any way unless the intussusception was caused by shock to the system, which seemed to him hardly feasible.

The HON. SEC. said he had had a case of double intussusception in the dog. The small bowel was telescoped into the colon, and the colon was telescoped into itself. The lesion was discovered on making a post-mortem and he could not account for it in any way.

Mr. BUCKINGHAM said the other day a hound pup was brought to him with six inches of bowel sticking out behind. After death he found a double intussusception. He found three or four little pieces of cinder just where the blockage was.

The CHAIRMAN said he had a similar case last year. A pup had a portion of the bowel protruding, and three days afterwards he had another pup out of the same litter which also had an intussusception.

Mr. Low said he had had two such cases in pigs just lately.

Mr. McTURK, in reply to Mr. Little, said he had the horse under treatment about three weeks. When he first saw it it was very very lame, and there was history of intermittent lameness as one would have expected. There was distinct drainage in the corner of the heel, the cleft of the frog. He treated it for a week or two but it got no better, so he had the horse destroyed.

#### SOME UNTOWARD SEQUELÆ OF PARTURITION.

By Mr. McTURK. [Adjourned discussion].

Mr. MORTON WALLIS said he noticed that Mr. McTurk did not mention giving a sedative after replacing the uterus in mares or cows. He would have thought that was rather an important thing. No doubt it was an oversight on his part.

Mr. LITTLE said he believed in some cases it was necessary to chloroform the animal before the uterus could be returned. If this were done the animal would not strain for some considerable time after.

Mr. McTURK, in reply: Of course it was necessary to give sedatives. Chloroform came under the same heading. When a mare after foaling was not going on well it was rather a good plan to make an exploration of the uterus, when very frequently something would be found left which would lead to considerable trouble. He had not tried lately clearing the fluid from the uterus with the syphon because he had given up syringing the womb, he found it was a difficult matter to get the fluid removed. When they got this foetid discharge and water mixed up together it gave rise to just about as much trouble as the pure foetid matter—if he might use such an expression.

Parturient laminitis he left out of his paper because it was a fairly large subject in itself, and he thought it might lead him on a great deal further than he wanted to go, so far as the length of the paper was concerned. After a difficult foaling he made a practice of having the shoes removed from a mare—if they had not already

been taken off. Then they would be so far ready if anything untoward occurred. With regard to eversion of the rectum after foaling, he saw from the report in *The Veterinary Record* that the discussion rather drifted on to eversion of the rectum in other horses, such as colts. He would have liked to have heard a little more from the members on the eversion of the rectum after parturition. In a certain district where he was once, there were quite a number of cases which he could not fathom at all. They were all fatal but one, and in most cases the rectum was very easily put back and it never came out again. In his paper he tried to explain his theory for the fatal condition—paralysis of the rectum after rupture of the peritoneum and subsequent septicæmia from the necrosed matter.

He did not touch upon eversion of the uterus in sows. On one occasion he came across a sow whose uterus had been everted for about six hours and it looked in a most unhealthy condition. He put the uterus back and put on clamps. They fetched him back in about two hours and said the uterus was out again. He found that the clamp had torn away from one side and that the uterus was out by the side of the clamp. He put it back again and took a bigger bite with the clamp, and the sow eventually did all right—which was rather surprising.

A vote of thanks was passed to Mr. McTurk for his paper, on the motion of the chairman, seconded by Mr. Auger.

#### PARASITIC MANGE.

Mr. SHIPLEY spoke of the extreme difficulty of finding the parasite in many cases, and pointed out how unsatisfactory it was to have to certify the disease in the absence of the parasite. He believed there was great scope for the investigation of parasitic mange not only in horses but in other animals also.

The CHAIRMAN said after the Act came in force and parasitic mange had to be treated, a stable in the district in which he lived was very soon practically cleared of the disease, although it had been a veritable hot bed of mange for years.

Mr. MORTON WALLIS said it was advisable in cases of mange to burn or otherwise thoroughly destroy the hair removed from the affected animal. He asked what plan Mr. Shipley adopted in placing the parasite under the microscope? Did he simply place the hair or the scab, or did he treat it with caustic potash, or anything of that sort?

Mr. J. K. GOOCH said that the method he adopted in examining scrapings from suspected cases of mange was: He placed the scrapings in a watch glass and covered them with proof spirit, then added a small quantity of water. When the motion set up by the addition of the water had ceased the scrapings were examined under a low power. Then the spirit and water were poured off, and a little dilute Liq. Potassæ added. This rendered any parasites or parts easily visible.

Mr. TURTILL mentioned a case in which mange had been conveyed to the people who had been attending to the affected horses. Mange was very contagious and wherever it had existed the whole place, harness and everything, should be disinfected, and there was no better steriliser than the oven. His rule was to bake everything well, and to burn the litter and everything that could be pulled down in the stable. The gates and posts in the fields where the horses rubbed themselves should also be disinfected and McDougall's dip was a good thing to wash them with. In this way the disease might be eradicated.

Mr. GODBOLT mentioned a case where a man took mange from a horse.

Mr. BARR asked whether cases of parasitic mange of various kinds had to be reported.

Mr. SHIPLEY referred Mr. Barr to the Parasitic Mange Order, which made the disease notifiable. Mange in the feet and heels was not notifiable, but the other two kinds were. When there was any doubt as to the existence of mange he did not know what to do.

He wrote to the Clerk of the County Council the other day that he suspected mange, but could not prove it, and the Clerk replied that the Order did not apply to suspicion, and that he (Mr. Shipley) must do what he thought best. He admitted that in many cases he would have been glad of better evidence of the disease. In many cases it was impossible to get the parasites because they were buried under the skin. Apparently it was possible for the disease to spread to human beings. He did not class parasitic mange with such diseases as foot-and-mouth. It was a disease a man ought to get rid of himself; there was not the danger of spreading that existed with foot-and-mouth, and similar diseases.

A vote of thanks was passed to Mr. Shipley for his paper.

A vote of sympathy was passed with Mr. Wm. Bower, of East Rudham, in his protracted illness.

SYDNEY SMITH, jun., Hon. Sec.

#### MIDLAND COUNTIES' VETERINARY MEDICAL ASSOCIATION.

The annual meeting was held at the Grand Hotel, Birmingham, on February 14th. Mr W. H. Brooke, of Handsworth took the chair, and there were also present: Messrs. J. J. Burchnall, Barrow-on-Soar; Brennan De Vine, J. Malcolm, L. C. Tipper, and M. Woodward, Birmingham; W. E. Ison, Atherstone; W. S. Carless, H. B. Hiles, Worcester; J. Martin, Wellington; T. Chambers, Dudley; Norman Thompson, Derby; J. A. Gold, Redditch; W. T. Brooks, Warwick; A. Renfrew, Broadway; H. Collett, West Bromwich; P. M. Evershed, Nottingham; Thompson, Stafford; A. B. Forsyth, Cannock; G. Prickett, Walsall; L. W. Heelis, Solihull; and the Hon. Sec. Mr. H. J. Dawes, of West Bromwich.

The visitors present were: Messrs. A. W. Noel Pillers, Liverpool; W. O. Brooke, Handsworth; T. H. Kellett, W. White, and F. E. Heath, Birmingham.

Apologies for unavoidable absence were received from: Sir John M'Fadyean; Sir Stewart Stockman; Professors Macqueen, Penberthy, and Hobday; Dr. H. Manley; Messrs. R. C. Trigger, J. W. Coe, C. E. Dayus, J. R. Carless, H. Thackeray, T. J. Brain, F. W. Garnett, C. Y. Parsons, W. S. Mulvey, E. Ringer, H. S. Reynolds, D. Forwell, S. J. Marriott, F. B. Gresham, T. C. Hutchinson, W. S. Taylor, P. Woolston, T. Abson, W. H. Pickering, C. J. Clifford, W. B. Blunson, T. J. Prince, T. H. Duckworth, R. L. Phillips, John Blakeway, F. H. Gibbings, Jas. Blake-way, sen., T. H. Hobson, F. W. Barling, G. H. Locke, E. O'Neill, W. White, W. Grasby, and others.

#### VOTE OF CONDOLENCE.

The CHAIRMAN referred in sympathetic terms to the loss which the Association had sustained since the last quarterly meeting by the deaths of two old and respected members, namely, Mr. J. M. Parker, of Birmingham, and Mr. W. Reynolds Jermyn, of Clifton. He moved that an expression of the Association's regret be entered upon the minutes of this meeting and also communicated to the relatives of their departed friends.

This was seconded by Mr. Renfrew and carried *sub silentio*.

## NOMINATIONS: RESIGNATION.

The Hon. Treasurer reported that Mr. W. L. Weighill, of Gloucester, had sent a letter resigning his membership of the Society, and the resignation was accepted with regret.

Mr. W. L. GASCOYNE, of Lutterworth, was nominated by the Hon. Sec. on behalf of Mr. T. H. Hobson, for membership of the Society.

Mr. WM. TRIGGER, of Newcastle-under-Lyme, was nominated by Mr. J. Malcolm.

## TREASURER'S REPORT.

The TREASURER (Mr. J. J. Burchnall) said he had a very satisfactory report to present. They started the year 1912 with a balance in hand of £178 3s. 2d. and had received £54 10s. in subscription and entrance fees, and £3 14s. bank interest, making the total on the assets side £236 7s. 2d.

The chief items of expenditure had been: annual subscription to the Victoria Veterinary Benevolent Fund, £5 5s., first instalment of donation to the International Veterinary Congress Fund, £20, and Hon. Sec.'s disbursements, £19 1s. 6d. The balance in hand at the end of the year was £184 6s. 8d., or an increase of £6 3s. 6d. on the year, notwithstanding the extra item in the expenditure of £20 to the International Veterinary Congress.

On the motion of Mr. Chambers, seconded by Mr. Martin, both of whom congratulated the Society on the sound financial position in which it found itself, the accounts were passed.

## COUNCIL'S REPORT.

The Hon. Sec. presented a report of the meeting of the Council of the Society, held just previous to this general meeting:—

Mr. W. H. Brooke presided over a meeting of the Council held to-day. There were also present: Messrs. F. L. Gooch, J. A. Gold, H. L. Pemberton, J. J. Burchnall, W. S. Carless, B. DeVine, J. Martin, and the Hon. Sec. (Mr. H. J. Dawes).

In the ordinary course of events, Mr. H. Thackeray, of Stafford, as senior Vice-President, would have been nominated for the Presidency, but he wrote stating that owing to the state of his health he would be unable to hold further office, though he hoped to continue his membership of the Association. Mr. J. Martin, the junior Vice-President, is therefore nominated.

The Hon. Sec. made a statement with reference to the subscriptions to the Guarantee Fund in connection with the forthcoming visit of the International Veterinary Congress to this country, and it was resolved to refer the matter to the general meeting.

The Hon. Sec. reported having received a letter from the Secretary of the Northern Branch of the National Veterinary Association recommending a scale of fees as a basis for negotiation with County Councils and other local authorities under the Contagious Diseases (Animals) Act. The Council advise the Association to adopt this scale.

Mr. Gooch gave notice that at the next meeting he would move the alteration of Rules 8 and 9.

It is recommended that the next quarterly meeting of the Association be held at Wellington, and that miscellaneous papers by members dealing with interesting cases in their own practice be the principal business on the agenda.

On the motion of Mr. Malcolm, seconded by Mr. Gooch, the minutes of the Council meeting were received.

## THE INTERNATIONAL VETERINARY CONGRESS.

The Hon. Sec. made a statement on the question of the Guarantee Fund. He said that in response to the

circular sent out to 100 members he had had replies from 38, whose contributions amounted altogether to £126 17s. 6d. Five members had promised other Associations a sum of £29 14s. He had still to receive replies from about 62 members. The £100 which Mr. Trigger had promised, and the £50 from the funds of the Association made a grand total from the Midlands so far of £276. He earnestly appealed for additional responses: and also read a letter from Mr. Garnett on the subject.

## NATIONAL BENEVOLENT FUND.

The Association were invited to appoint a Life Governor of the Benevolent Branch of the National Veterinary Benevolent and Mutual Defence Association, in succession to the late Mr. William Carless, of Stafford, and upon the motion of Mr. Malcolm, seconded by Mr. Gold, the Hon. Sec. (Mr. H. J. Dawes) was appointed.

## ELECTION OF OFFICERS.

The PRESIDENT moved that Mr. J. Martin, of Wellington, Salop, be elected President of the Association for the ensuing year. He said Mr. Martin was a very old member and attended the meetings regularly. He also took an interest in their discussions and he was a gentleman who would make a worthy successor to many distinguished members of the profession who had already held the office. Mr. Prickett seconded.

The Hon. Sec., in supporting the motion, mentioned that Mr. Martin was not only popular with his brother veterinarians, but was held in the highest esteem in the town in which he lived, having served the office of Chairman of the Urban District Council in Wellington.

Mr. CHAMBERS, who claimed a close personal acquaintance with Mr. Martin, also supported the motion in complimentary terms, and it was carried unanimously.

Mr. MARTIN, in reply, said it would be his earnest endeavour to serve the best interests of the Association.

On the motion of Mr. Gooch, seconded by the President, the recommendations of the Council were endorsed:—

*Vice-Presidents.*—In view of the visit of the International Veterinary Congress to this country next year the Council recommend that the offices of Vice-Presidents on this occasion be filled by two old members whose services to the profession in general, and to this Association in particular, merit this special honour. The names of Mr. R. C. Trigger, senior Vice-President, and Mr. J. Malcolm, junior Vice-President, are recommended.

Other recommendations of the Council are as follows:—*Treasurer.*—Mr. J. J. Burchnall.

*Hon. Sec.*—Mr. H. J. Dawes.

*Auditors.*—Messrs. W. S. Carless and R. C. Trigger.

*Members of Council.*—Messrs. Gooch, Grasby Wartnaby, R. Over, B. DeVine, Ison, Pemberton, and Heelis, together with the officers of the Association who are *ex-officio* members.

A very hearty vote of thanks was passed to the retiring officials.

## THE NEW MILK BILL.

The Hon. Sec. read an extract from a leading article in a recent issue of *The Veterinary Record* on the subject of the new Milk Bill, in which an injustice was threatened to the veterinary profession, and calling for suitable amendments. He thought he ought to bring it before the notice of the Association, as previous experience showed that the veterinary surgeon generally barked when it was too late. He should be very much surprised if veterinary surgeons as a body did not take exception to certain clauses in the Bill. There were three classes of persons to be considered, namely, the medical officer on questions of health, the veterinary surgeon so far as the condition of the animals themselves was concerned, and the Sanitary inspectors, who would

deal with the general sanitary arrangements. The editor of *The Record* pointed out that the status of the veterinary surgeon was not being properly recognised, and it behoved them, therefore, to look after their own interests while there was yet time.

Mr. GOOCH said they must all be indebted to the Hon. Sec. for calling their attention to so important a matter. He moved that the following resolution be sent to the Parliamentary Committee of the Royal College of Veterinary Surgeons with a request to them to take the matter up.

"That in the opinion of this meeting, sanitary authorities should be given power so appoint a veterinary surgeon as a dairy inspector under the the New Milk Bill."

Mr. MALCOLM, in seconding, said it was quite right that the Parliamentary Committee should know the feeling of the profession in regard to this matter. They must all agree that the veterinary surgeon ought to be allowed to take a greater part in the inspection of dairies. If they took no notice of this Bill as it was going through Parliament he thought they would be missing a chance of getting the veterinary profession properly recognised in matters of Public Health. Farmers know that if there was one man in this country who should be a dairy inspector in this country it was the veterinary surgeon. They should use their individual endeavours with the farming world to bring pressure to bear in the right quarter to get the Bill modified.

Mr. CHAMBERS said he hoped the Government would not treat veterinary inspectors under this Bill as they were treated under the Contagious Diseases (Animals) Act, in connection with swine fever. Not that he grudged those gentlemen who had obtained the special appointments, but he thought a hardship was inflicted upon many hard-working practitioners, and that thousands of pounds of public money were thrown away. A veterinary surgeon and a practical sanitary inspector were the men to inspect dairies and cowsheds.

Mr. PRICKETT supported the remarks of the previous speaker. He said there was very little encouragement given to the general practitioner to-day to report cases.

The PRESIDENT said it seemed difficult to understand how veterinary surgeons could be overlooked, as they were clearly the best men to do the work. They were quite willing to acknowledge the supreme control of the medical officer, especially when any disease in animals was also detrimental to human beings, but as Mr. Dawes had said, they must bark in time if they were going to do any good.

Mr. DEVINE was afraid there was a feeling abroad in that meeting that the Milk Bill should be condemned altogether. They certainly wanted a new Milk Bill and he hoped that would be universally recognised. He quite agreed, however, that the veterinary surgeon should receive proper recognition in respect to the work which he was, above all others, most qualified to do.

Mr. MALCOLM pointed out that as the Bill at present stood, the sanitary authority had no power to appoint a veterinary surgeon to act; that power was in the hands of the medical officer. As a profession they were far from being in opposition to the medical officer in this matter: they wished to support him in every way, but they also wanted their own status adequately recognising.

The Hon. Sec. said he too should be very sorry if the idea got abroad that they were antagonistic to the medical officers of health. Such doctors as he knew agreed with him that the veterinary surgeon had a right to be recognised by the State in matters of this kind.

The resolution was then put to the vote and carried unanimously.

THE ROYAL SANITARY INSTITUTE.

The TREASURER (Mr. Burchnall) said he desired to see an unfortunate omission repaired. When they de-

puted their President to represent the Association at the conference of the Royal Sanitary Institute at York last year, no arrangements were made for the payment of his personal expenses. It was always customary to do that, and he now moved that the sum of four guineas be paid to the President to meet his out-of-pocket expenses on that occasion.

This was seconded by Mr. Martin and carried unanimously.

#### THE METHODS BY WHICH SOME OF THE HIGHER ANIMAL PARASITES PRODUCE THEIR INJURIOUS EFFECTS.

By Mr. A. W. NOEL PILLERS, F.R.C.V.S., F.Z.S.

[The paper was printed in our issue of Feb. 15, pp. 504-507.]

#### DISCUSSION.

Mr. BRENNAN DEVINE: I should like at first to say that I am proud of having received an invitation to open the discussion on this important paper, and I feel the honour is all the greater by the fact that we have among us to-day many able men whose knowledge of the subject under discussion must far exceed my own. I am sure all of us are grateful to Mr. Pillers for bringing before us such an excellent paper on the subject. I regard a knowledge of the injurious effects caused by the higher animal parasites as of the greatest importance from an economic as well as from a public health point of view.

In discussing a paper of this sort I suppose one is expected to give the various points wherein one differs from the author, but this paper of Mr. Pillers is not open to much adverse criticism, and if I confined my remarks to the opinions in the paper with which I do not agree I should have very little to say. In his opening remarks, the essayist says we have passed the days when ento- and ectozoa were regarded as being beneficial to their hosts. Speaking from the point of view of educated people that is so, but there are remote corners about the country where the inhabitants cling to the old idea that the presence of a tape worm is beneficial to the host. Generally speaking, parasites are harmful and tend to produce pathological changes, but in some cases beneficial effects are apparently produced: for instance, in the early stages of the invasion of the liver fluke (*Distoma hepaticum*) the condition of the host is improved up to a certain point, previous to depreciation setting in. Mr. Pillers, by dividing the paper under the five headings mentioned, has placed the subject in a very concise and clear manner, which enables one to follow him with ease. I notice that the nomenclature used in many cases is not the same as was common in my college days. The essayist has in many cases placed the older name in brackets. For instance, *Cænurys cerebrealis* is a name well known to all of us, but when we read *Multiceps multiceps* we have to pause and think, in order to recognize our old acquaintance *Cænurys cerebrealis* under a new name. Probably there is some good Zoological reason for this, or otherwise a F.Z.S. would not have so named them. I am sure it would interest the members to know the advantage of this re-naming.

Under the heading of injuries caused by the mere presence of the parasites, the essayist mentions the *Lingula tenuioides* as setting up irritation in the nasal fossæ. I am sorry the essayist has not gone into more detail about this parasite. I have never seen a case of an affected dog; I should like to see one. I shall be glad if Mr. Pillers, when replying will give us a description of the cases he has seen. I have read of cases where the irritation is so pronounced as to cause caries of the bone.

In the next paragraph the writer states that parasites in the lungs of the horse, calf and pig, block the large bronchioles and bring about collapse of that portion of the lung served by that particular air passage. When such an obstruction takes place I do not think it is



entirely due to the mere presence of the parasite, but is partly due to modification which has been brought about in the surrounding tissues by the irritant action of the parasite. There is no doubt that the irritation caused by the parasite sets up an inflammation and congestion, and this of course tends to narrow the lumen of the air passage. The same applies to the syngamus in fowl.

In another paragraph we are introduced to the *Cysticercus cellulosæ*, a parasite which was at one time very prevalent in this country, but now is fortunately very rare. It is here stated that it seems to produce little or no trouble, but I scarcely agree. I admit, of course, that of all the organs the muscles are the most tolerant to parasites, but if we consider the enormous number of cysts found in one host it is difficult to conceive how their mere presence does not render the existence of the host uncomfortable sometimes. Their presence must necessarily cause pressure on the surrounding tissues, and there is reason to suppose that the pressure may in some cases be directly on nerves, so causing direct irritation.

The echinococcus cysts are the most destructive, save the *Cænurus cerebralis*, of any of the cystic forms that I have met with. The cyst produces great destruction of tissue in whatever organ it is situated. In some cases it does not attain to any very great size, whilst on the other hand it may grow so large as to cause destruction of the whole of the organ in which it is situated, and indirectly it may thus bring about the death of the host. The position of parasites in the alimentary canal may sometimes give rise to serious trouble—bots may so accumulate around the duodenal orifice of the stomach as to cause obstruction, whereas if their position was changed a few inches it would not be so dangerous. I have seen cases in the horse on post mortem in which portions of the bowel were found to be practically filled with the *Ascaris megaloccephala*, if these positions were changed and all were accumulated at one portion of the bowel where the lumen is smallest, obstruction might easily be caused. I think we can scarcely pass over the position of the bowels in the alimentary canal as being unimportant.

In the next section of his paper, which deals with the migration of parasites, Mr. Pillers mentions the *Hypodermis bovis*; he, however, omits to mention his theory as to how this parasite arrives at the subcutaneous position it occupies in the backs of cattle. A little later the essayist mentions that farmers should take action against the fly, yet he does not suggest what prophylactic measure he thinks they should adopt in order to effectually get rid of the fly. I think it is rather a pity the essayist has not introduced some practical points in connection with the eradication of these well-known pests. Mr. Pillers' reference to the *Trichinella spiralis* would lead one to think it only causes trouble by migration, whereas Wells, in his Chemical Pathology, states that it unquestionably produces toxic symptoms and that the poison causes cellular degeneration.

The Essayist refers to the arrest of the *Strongylus armatus* at their predilection seats. I have seen several cases of this sexually immature parasite affecting yearling and two-year-old horses, the parasite being found in the lumen of the blood vessels at the junction of the anterior mesenteric artery. I have also seen Thrombosis of the iliac arteries in animals in which the parasite was found in the blood vessels. I have in my mind a case which I saw at a farm in the north some years ago. The animal while alive exhibited the usual symptoms of colic, and was treated for this; on post-mortem examination the bowels appeared normal; death was due to internal hemorrhage, caused by a rupture of a blood vessel into the abdominal cavity, and round worms were found in the Post Aorta. As regards the *Trichocephalus affinis*, we know that it penetrates to the

bottom of the mucous lining of the bowel, and it must necessarily, by its burrowing and attachment, cause irritation and tend to interfere with digestion.

There is no doubt that the *Strongylus tetracanthus* in the horse produces indigestion and general unthriftiness. I suppose under the same category as migration one may include the injury caused by the parasites attaching themselves. There is no doubt that parasites by their movements often cause serious disturbance in the intestines and other viscera. They must by their hooklets and suckers irritate delicate lining membranes and set up catarrhal and inflammatory conditions, proportionate in intensity to the number and activity of the parasites. For instance, take the case of the *Tænia echinococcus* which gambols about the hills and dales on the mucous membrane lining the dog's bowel. On making a post-mortem on a dog, and examining the lining mucous membrane of the bowel on which a family of *Tænia echinococcus* has matured; what do we find? The mucous membrane is loosened and congested, and histologically there are great structural changes: well, we all know that these disadvantageous modifications cannot take place without having a correlative debilitating effect on the constitution. I agree with Mr. Pillers that the damage to the host under this heading of migration is a most important one, and that the indirect injury caused is often more harmful than the direct. To illustrate what I mean by indirect injury—in the case of the mange parasite the indirect injury is caused by the animal biting itself and rubbing against sharp projections.

In the next section of the paper Mr. Pillers deals with the injury caused by parasites feeding on tissues and juices of their hosts, there is no doubt that when you get a number of parasites which feed on the digesting food there must be a not inconsiderable loss of food to the host. It will of course be difficult to demonstrate how much of the loss of condition in an animal is due to irritations caused by the migration and attachment of parasites and how much to the loss of ingesta absorbed by the parasite. In the case of "wasters" in cattle due to *Strongyles* in the fourth stomach it is difficult to determine exactly what brings about the great loss of condition.

I scarcely think that the amount of food or chymous matter which parasite in the alimentary canal absorb sufficiently accounts for the great loss of tissue which is seen in affected animals.

There is no doubt that some animals possess a certain tolerance for particular parasites, because we often find on post-mortem numerous parasites in the bowels of horses and cattle, but when this tolerance is overcome as it is quickly in the case of young animals, such as lambs, affected with *Moniezia Expansa*, the parasites then become a great source of trouble, causing wasting, anæmia, and other unfavourable symptoms. The question arises then, what is the direct cause of these symptoms? Are they due to impaired digestion caused by the migration and attachment of the parasite, or is it brought about by the loss of blood or chymous matter?

As regards toxins produced by the higher parasites, I think it is generally understood that mange parasites produce a toxin which acts detrimentally on the skin in the same way as the blow fly acts on the sheep. The latter excretes a substance which tends to melt the meat and then it feeds on the juice thus formed. Indirect toxæmia may occur through auto-intoxication; parasites may so wound the bowel as to expose blood vessels, and you may then get absorption into the blood of harmful matter from the fæces.

Mr. Pillers refers to "eosinophilia." Nowadays, most authorities agree that eosinophilia is due to the action of soluble products or constituents of parasites. Cala-

mida found that extract of tape worms from a dog when placed in the tissues caused an accumulation of eosinophiles at that part.

Mr. Pillers mentions a case of a young pig affected with convulsions in which he found only three nematodes on post-mortem. It would be interesting and instructive to definitely know if the convulsions were due to either toxæmia or to irritation alone. I am rather partial to the irritation theory. We know that the sight of food stimulates the gastric and intestinal glands, and the secretion from these glands may cause active movement among the ascaries, and these movements cause irritation sufficient to produce convulsion. A little further on the Essayist mentions liver rot in sheep and suggests that the anæmia caused is due to toxæmia. I believe it is due to the want of liver substance. The liver we know has a multitude of other functions other than the production of bile. In fluke disease the liver structure is gradually destroyed, and consequently the internal secretions which the liver forms are reduced in quantity, and this I think would sufficiently explain the anæmia which is so marked a symptom in distomatosis. The fluid in the cysts which form part of the life cycle of cestodes possesses in every case toxic properties. The toxic extracts recovered from cestodes themselves have in most cases been found to be hæmolytic. James and Mandone found the extracts of *tænia bactericidal*. *Sarcosporidia Tenella* of sheep (*Balbiana gigantea*) are highly toxic for rabbits, the toxin in this case being name dsarcocystin. In this most interesting section of the paper relating to toxins I had hoped that Mr. Pillers would give us something new on the subject, as our present knowledge is in a very unsatisfactory and fragmentary state. It is difficult to assume what degree of virulence is possessed by toxins elaborated by parasites in the alimentary tract, and as far as I can ascertain the toxic products of the higher animal parasites are not well defined from a chemical point of view, in fact there is at present a large untitled field waiting for some enthusiastic active research workers.

In the final section of his paper the Essayist deals with the injury due to the transmission of disease-producing organisms by the parasite. Since it has become known how malaria, sleeping sickness, tsetse fly disease, are spread, the subject of parasitology, as the Essayist points out, is more important than ever, but before scientists had acquired a true knowledge of the methods by which these diseases were spread, practical veterinarians held the view that several diseases of domestic animals, e.g. "redwater" in cattle and "looping-ill" of sheep were spread through the agency of ticks. We now know for certain that redwater is thus spread. Any advance made in our knowledge of the spread of swine fever will be hailed by all of us. Knowing what ticks, fleas, and flies are capable of doing in the spread of disease, it will be no stretch of the imagination on our part to admit the possibility of hæmatopinus suis carrying the ultra microscopic organism which causes swine fever.

Before concluding, I wish again to thank Mr. Pillers for bringing this paper before the Association. The trend of medical science at the present day is towards prophylactic or preventive measures, and I think it is a pity the essayist has not touched on this in his paper. Perhaps he will do so in his reply.

Mr. GOOCH said a paper like that they had had from Mr. Pillers only created a desire for further knowledge. He had to look back into his dictionary again to find many of the words that were used, and at any rate one result of that was to increase one's knowledge of nomenclature. He differed from the essayist on one or two small points. For instance, he said that large numbers of adult worms blocked many of the larger bronchioles in the horse, calf and pig, and by their mere presence

gave rise to collapse of the lung tissue supplied by that vessel. He (Mr. Gooch) would have agreed with him better if he had said that the smaller instead of the larger bronchioles became blocked. The Essayist had not mentioned such a case as migration to the testicle, which was not, be believed, an uncommon experience. With regard to the *Strongylus tetracanthus*, he thought it caused more deaths in young horses than any other disease that they had. It was not unusual, where the disease was prevalent, to have six or seven deaths when 20 or 30 young cart horses were running together. With reference to the case of convulsions mentioned by Mr. Pillers in a pig affected with ascariis, he had himself met with the same condition in a cat. He was inclined to think the more delicate breed of cats, Persians for instance, which were in-bred, were liable to it. With regard to redwater, when he was a young man it was such a common thing that they used to keep medicine ready made up. With improved sanitary conditions they did not get so much of it nowadays. It generally appeared in a poor man's cow, where he was not able to keep it properly. Mr. Pillers expressed the belief that the list of diseases spread by flies and ticks would probably be augmented, but it was to be hoped that a good many existing diseases would be entirely eradicated by means of improved sanitary conditions and the knowledge acquired by the study of bacteriology.

Mr. RENFREW said he had read the paper with very great interest and had also listened to Mr. DeVine's masterly criticism of it with much enjoyment. With reference to some of the round worms, and particularly in the bronchioles of the calf and the pig, there was no doubt that suffocation was due to the literal packing of the worms themselves. He had seen quite a rope of them removed. As to Mr. DeVine's complaint that the essayist had not gone into greater detail in some of the subjects, they ought to remember what a vast field for speculation parasitology was. For his part, he considered that Mr. Pillers had summarised the subject in a most admirable manner. With Mr. Gooch, he knew of nothing more troublesome in country districts, especially in the late autumn or early spring, than the trouble due to worms in the bowels of young horses, and if there was a specific for their cure he would like to hear of it. Any parasitic trouble was bad enough, but worse of all was the *strongylus tetracanthus*. He used to have a few cases of red-water every month, but he had not seen anything of it for over a year.

Mr. GOLD said he was very interested in that part of the paper that referred to the *Hypoderma bovis*. He would like to know how that parasite got to its natural habitat. In his own district he had had a lot of trouble with *Tænia*. He had no contribution to make to the discussion, but he was anxious to derive as much information as he could.

Mr. MALCOLM said they must all appreciate very highly the fact that Mr. Pillers had come all the way from Liverpool to give them that paper because he was an authority on the subject. It was a very suggestive paper in many ways, and it reminded them that very often parasites might be present when they were looking for something altogether different. One lesson which the paper taught them, therefore, was to be observant, and if possible a collector of parasites. He would like to have heard a little more about mange.

The PRESIDENT said he had not heard any reference to worms in puppies. It was a common thing to get puppies two or three months old affected with worms. They even got them before they had taken anything but their mother's milk, showing that there was only the mother through whom they could get the worms. He would like to hear how it was transferred from the mother to the puppy. Nor did he think anyone had spoken of worms being responsible for disarrangement



of the bowels. He had made a lot of post-mortems and he did not think he was exaggerating when he said he had never known a case of twisted bowel without worms being associated with it. With regard to the alteration in nomenclature, was it because there had been any alteration in the zoological department?

#### REPLY.

Mr. PILLERS, whilst thanking the Association for inviting him down, said that he must also censure them for not having been a little more definite in saying what they wanted. Upon almost every parasite that he had mentioned in his paper he could have given them enough to make them tired. Mr. DeVine and Mr. Gooch were quite justified in their remarks that the paper was incomplete, and that information was scanty in regard to various parts of it. He had derived most of the paper from his lecture notes, and he purposely made those notes scrappy and disjointed to make people think for themselves. He must particularly thank Mr. DeVine for opening the discussion in the way he had done, because it was disheartening to hear a man say he agreed with everything in the paper. Mr. DeVine had said that the inhabitants in some parts of the country still thought that parasites were a good thing. When he (Mr. Pillers) mentioned that we had long passed the era of thinking parasites had any value, he was referring to veterinary surgeons and those who had some scientific knowledge. Mr. DeVine said, too, that parasites might be good at first, but that might be said of other things. They should, however, judge a parasite by the sum total, and if they did that there was not much to be said in their favour. Take the house fly, they might say that it did good. So it did to some extent, because it was direct evidence that there was some filth where it was breeding, but anything it did after that was injurious. Lice did good, they told people that the head was dirty, but the sum total of their influence was bad. With regard to the altered nomenclature which had concerned some of the speakers, where there had been any change he had put the old term in brackets directly after. In naming an organism, it was understood that the name it first received should have priority over any other. If there had been a mis-determination, one of the names had to fall. Then, again, they had been given to understand that there were two worms affecting horses, the *Strongylus armatus* and the *Strongylus tetracanthus*, the large and the small, but there were three different species of the large worm and about 18 different species of the other in different genera, and so fresh names had to be employed to distinguish one from the other. Mr. DeVine especially mentioned the use of the name *Multiceps multiceps*. If they called an oak tree by a Latin name, when adult they would not give a different name to the acorn, and the name *Multiceps multiceps* was given to this particular parasite on the ground of priority. As to the way in which he had grouped the injurious effects which parasites produced, he agreed that it was possible to put a case under more than the one heading, but the system he had adopted seemed to him to be the more convenient. With regard to the lung trouble caused by worms, Mr. DeVine held that the irritant action of the parasite was as much a cause as the mere presence of the worms in the bronchioles, that was true, but in that connection there was the interesting testimony of Mr. Renfrew that the worms could be pulled out in ropes. One of the best cases he could quote was that of a donkey affected with *Dictyocaulus arnfieldi*, in which the parasites were so blocked that he questioned if he could put a pencil between the mass and bronchial wall. Mr. DeVine had alluded to the effect which *Cysticercus cellulosae* produced in the pig. Of course it must have some effect. If it came at the end of the nerve terminal, said Mr. DeVine, it would cause pain. He (Mr. Pillers) could

have enlarged greatly on that subject. He could also have devoted a paper to the subject of *Hypoderma bovis* about which Mr. Gold was anxious to have more details. The history and economic aspect of the subject were most interesting, but he was afraid he would have to content himself with a very slight reference to it. There was some doubt about the life history of this parasite. The fly deposited its eggs on the skin, and then the question arose as to what happened to the eggs. The evidence was that it was taken into the system by the cow's tongue when licking, and it then bored to its seat underneath the back. Mr. DeVine said that for some years he had not seen the *Strongylus vulgaris* and other worms, but because one could not see them it did not say they were not there; they were probably visible through the microscope. Mr. DeVine seriously disagreed with what he had said about the *Lucilia sericata*. He was not describing the stages in which the mischief was done, but when they saw a great hole in the sheep after a few days he thought his explanation was a reasonable one. As to the connection between swine fever and lice, it was feasible, but there was one thing about lice, and that was they could not transmit it a great deal, because they were more or less localised. There was not much transmission from one animal to another, except when they happened to rub against each other on the same premises.

He regretted that time had not permitted his going into the practical side of it more fully and to have dealt with prophylactic measures. He might have devoted some time to the prophylactic side of the question if he had taken one parasite only, but as he had covered such a wide field he had not been able to do so. With regard to *Strongylus* in the testicle, here again was a subject that would lend itself to much more exhaustive treatment than he had been able to give it in the short time at his disposal. He agreed that the treatment of *Strongylus* in the horse was very unsatisfactory. When they discovered the presence of the worm in the animal the damage was done. They must then try to prevent others getting back again. It was of the highest importance to know something of the character of these parasites, or else preventive work, which was what they wanted most of all, was not likely to be very effective.

Mr. Pillers proceeded to answer a number of other questions that were raised in the discussion, and especially dealt with mange, its treatment and diagnosis, but requested that his remarks on this subject should for the present go unreported.

#### THE ANNUAL DINNER.

The company then adjourned to another room where the annual dinner was served, Mr. Brooke again presiding. Owing to the lateness of the hour the toast list had to be considerably curtailed, but the Chairman said that however pressed they were for time, no body of veterinary surgeons would allow the toast of "The King" to pass unhonoured.

The toast was drunk with all loyalty.

Mr. PILLERS proposed "The Midland Counties' Veterinary Association." He said it was recognised that this Association had done a great deal of good for the profession during its long existence, and he hoped that under the new National scheme its power for good would be even greater. He was glad to see they were getting a lot of young men to join the Association, for it must be a satisfaction to those who were now bearing the heat and burden of the day to know that when they laid down their task it would be carried on by others as zealous and enthusiastic as they were themselves. He thought that a single entrance fee would be an encouragement to men to join, by which he meant that a man who had already paid an entrance fee to another Association should be admitted to this Association without paying a further entrance fee, and *vice versa*.

He coupled with the toast the names of the President and the Hon. Sec.

The PRESIDENT, in reply, said one of their objects was to improve the social status of the profession generally, but that lay more with the individual than with an Association. He thought they had been apathetic too long, but he was glad to notice signs that the veterinary surgeon would be given his proper place in the scientific world.

The HON. SEC., after first acknowledging some kind personal references to himself by the proposer of the toast, said the Midland Association claimed to be second only to the Central Society in point of numbers, and second to none in point of influence. They generally managed to make a good choice in the matter of their presidents. None would deny that in Mr. Brooke they had found just the man for the position, and he was pleased to think that in their old friend, Mr. Martin, of Wellington, they had a most worthy successor. As far as he was concerned, he fulfilled his secretarial duties with a great amount of pleasure, because he had never received anything but kindness and consideration, not only from the other officers of the Association but from the members generally. With regard to affiliation, he thought so far as the different branches of the National were concerned in order to make affiliation a success, the meetings ought to be held in different parts of the various districts, and he had suggested as much. He had reason to believe that the next meeting of the Northern Branch National would be held at Birmingham.

Mr. MALCOLM proposed "The Visitors." He said they were always pleased at the Midland Association to have visitors amongst them, and he could always promise them a hearty welcome.

Mr. PILLERS responded, and incidentally mentioned, as Secretary of the Northern Branch of the National Association, that he believed in the principle of holding meetings in different parts of the district. It was a means of stimulating local interest, and unless they secured the support of the rank and file of the profession they could not hope to succeed.

#### SPECIMENS.

Mr. PILLERS, after dinner, exhibited a number of mange parasites, and also material for diagnosis. He received the hearty thanks of the Association for all the trouble he had been to that day.

H. J. DAWES, F.R.C.V.S., Hon. Sec.

#### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The fifty-first annual meeting was held at the Grand Hotel, Manchester, on Saturday, February 15th. The President, G. H. Locke, Esq., in the chair.

The minutes of the last annual meeting were taken as read, on the proposal of Mr. Wolstenholme, seconded by Mr. Wright.

**Nominations.**—Mr. K. J. S. DOWLAND, Board of Agriculture, was nominated for membership by Mr. Noel Pillers. Mr. Pillers said that in endeavouring to get young men to join the Association he had met with the objection that many of them are moved about the country and therefore would have to pay entrance fees to several different associations. It appeared desirable, he thought, that some arrangement should be made whereby this could be obviated and one entrance fee suffice.

The PRESIDENT pointed out that one of the Rules of the Association allows a new member, who is already a member of another society, to join without entrance fee. It was decided to refer the matter to the Council.

**Correspondence.**—The Secretary read a letter from Sir Stewart Stockman appealing to the Association to

complete a list of promises of subscription towards the International Congress. Also stating that the promises so far made have been from only 200 out of the 2,000 members of the profession.

From Mr. Garnett was also an appeal to the members of the Association for subscriptions towards the International Congress.

Mr. STENT stated that the sum of £5 5s. for three years has been advised to be paid by the Society. He thought the present applications were directed to individual members.

The PRESIDENT suggested that the Council might draw up a scheme to approach members.

Mr. SUMNER proposed, and Mr. Carter seconded, that the Council consider the question, and report.

From the National Veterinary Association, with a suggested scale of fees and allowances payable to veterinary inspectors. This also was referred to the Council, the Secretary stating that there would thus be time to put each member in possession of all the literature prior to the next meeting.

From Mr. Carter which expressed his great appreciation of the honour conferred upon him by the members of the Lancashire V.M.A. in again nominating him as a candidate at the next election of Council of the R.C.V.S.

#### BALANCE SHEET.

Mr. STENT, hon. treas., first apologised for not having had it printed and circulated to members as hitherto. It was proposed to publish it in a small handbook containing their rules, list of members, and other matter, and that had caused some delay. It was expected to be issued in a week or so. He read out the items of receipts and payments, and declared a balance of £26 8s. 1d. Nine new members had been elected during the year, three old members had rejoined, one had resigned, and four names had been removed for non-payment of subscriptions. The membership was now 87 against 80 last year.

Mr. TAYLOR, as one of the auditors, moved that the balance sheet be received and adopted.

Mr. PACKMAN seconded, and it was carried.

#### PRESIDENTIAL ADDRESS

Mr. G. H. LOCKE, M.R.C.V.S., Manchester.

Gentlemen,—May I commence by thanking you most sincerely for the honour you have done me in electing me President of this well known Association. I accept the position with considerable diffidence knowing well my shortcomings to fill the post and follow in the steps of the men of prominence, who have occupied the office before me; still it will ever be my sincere desire, in the future as in the past, to further the interests of the Association during my year of office, and to keep it up to the high standard of efficiency it still holds in the profession. At the same time, may I look for your hearty co-operation and support during the year, and express the hope that by your presence and interest at our quarterly meetings, my period of office will pass pleasantly and advantageously to all of us.

I propose to say a word or two on recent events that have taken place in the veterinary world, and first would allude to the two cases of recognition that our profession has had bestowed upon it. I refer to the Knighthood conferred on Mr. Stewart Stockman, of the Board of Agriculture, a well merited honour by a well tried Government servant, and through him, we are pleased to hope, our profession. These honours are so few and far between that we are naturally delighted when the veterinarian is in any way noticed. I am sure you all join me in offering our heartiest congratulations to Sir Stewart.

A second case is the acknowledgment which has

emanated from the powers that be, by appointing a Commission to enquire into the requirements of the Public Services with regard to the employment of Veterinary Officers. I myself think that much good will come to us as a result of that Commission. It opens up new branches of service, and is gratifying if only from the fact that we are to be recognised in our proper sphere; it is a move in the right direction, and, personally, I think we ought to be pleased with their report. We must do all in our power to keep our respective Members of Parliament stirred up, so as not to allow the report to be "shelved"—as has been the fate of many before it—and agitate until we get our proper rights as a profession.

This brings me to mention the great transformation that has taken place in the reorganised National Veterinary Association by the amalgamation of practically the whole of the Veterinary Medical Associations. I am sure the N.V.A., if run on proper lines and truly supported, not only by the branches and divisions but by individual members, ought to be of great benefit to us all. We have lacked in the past an Association to look to to bring forward points, shall I say of commercial interests to us as practitioners, and put forward the views of the general practitioners in the proper quarter. From what I have already experienced as one of your representatives on the Council of the N.V.A. I am sure that the reorganised "National" will become a power in the land.

As you are already aware, we are to be honoured by a visit from our International Colleagues in 1914, and I should like to emphasise the necessity for us all to do our utmost to make their visit a very happy and profitable one. This will call for some sacrifice by our members, as unfortunately we are not in so happy a position as our Continental friends, who receive State grants for all their schools, and pecuniary assistance when the Congress is held in their several countries, therefore the onus falls upon us to subscribe the necessary funds to entertain our visitors. May I appeal to you gentlemen to give the Congress every help by subscribing as liberally as you can, and so keep up the reputation of Lancashire. Having had the pleasure of being one of your delegates at an International Congress at Baden-Baden, I cannot speak too highly of the good fellowship and hospitality extended to us as visitors on that occasion, and I am anxious to do all in my power in returning their kindness, which I can assure you is still a pleasant memory.

Before closing I should like to take this opportunity to bring before those who are not already members, the great benefits that are gained by joining the National Veterinary Benevolent and Mutual Defence Society. One never knows when a fractious client may turn up, and although, fortunately, assistance to defend is not very often required by any individual member, it is very consoling to know that one is, also at the same time subscribing to relieve the wants of some more unfortunate brother or sister.

I thank you once more for the honour conferred on me and for your kind attention to these remarks.

Mr. CARTER proposed a hearty vote of thanks to the President for his address.

Mr. WRIGHT seconded, and Mr. Packman supported. This was carried with acclamation.

On the proposition of the Secretary, seconded by Mr. Sumner, a telegram was sent from the Association assembled to Sir Stewart Stockman congratulating him on his honour.

#### THE DINNER.

For the first time ladies were invited and were present in goodly numbers. The attendance of members included the President, Messrs. Stent, Taylor, Woods,

Carter, Noel Pillers, Sumner, Wilson, Wright, Spreull, Priestner, Abson, Wolstenholme, Packman, Noar, McKinna, Lawson, Turner, Clarkson, Munro, and Brittlebank.

Amongst the visitors were: Sir Alfred Hopkinson, Manchester University; Aldermen Bowes, Dixon, and Turnbull; Councillors Bowie, Kay, and Jones, of the Manchester City Council; Dr. Serjeant, Dr. Sutherland, Dr. Cryer, and Mrs. Cryer, Dr. and Mrs. Wolstenholme, Mr. Taylor, jun. and wife, Mrs. Lawson, Miss Taylor, Mrs. Wolstenholme, Mrs. Priestner, Mrs. Stent, Mrs. Kay, Mr. and Mrs. Crompton, Mr. and Mrs. Wership, Mr. W. Stott, Mr. and Mrs. Haughton, Mr. and Mrs. Cantrell, Mr. W. Locke, and Mr. Greenup.

Apologies for absence were received from Messrs. Hughes, Share-Jones, Lloyd, Heyes, Garnett, Fletcher, and Wharam.

The PRESIDENT gave the toast "The King," which was acclaimed with musical honours.

The PRESIDENT gave "The Queen, Queen Alexandra, and the other members of the Royal Family." This toast was also loyally responded to.

Mr. SUMNER gave "The City of Manchester." He took no responsibility for having the honour of the toast given to him, a toast of great importance, and one which if properly prepared, would have to be very comprehensive. As they knew he came from Liverpool, between which city and Manchester there was antagonism, not necessarily bitter, but he believed friendly antagonism. Although they were opponents, he claimed that Liverpool and Manchester men are essentially brothers and friends, Manchester naturally appealed to all of them as being a most important city. Important for her wealth, noted for noble buildings, which in turn are noted for their black places, noted for the spinning of "yarns." Coming by train from Liverpool they were reminded all along the line about Manchester goods being for Manchester Docks, and he wondered whether the time would come when, as a result of the waterway which connects Manchester with the coast, they in Liverpool would have to close their doors and say their docks were no longer necessary. It has been proved, however, that there is room for all. He believed Manchester is quite happy in the results of her waterway, to which Liverpool subscribed nobly. Liverpool has a constant reminder of the presence of Manchester, especially in the upper reaches of the Mersey, and they felt sure the waterway did a good deal towards cleansing Manchester of something which it was ready to give away. However, they were glad to abide as close friends, and notwithstanding the Ship Canal they were still building docks in Liverpool and were considering how best to cope with the congested amount of goods in their docks.

They admired Manchester for many things and especially in her relationship with the veterinary profession. They admired her for the great care taken in safeguarding the health of her citizens. They wanted her to do still more. They wanted her to set up a standard in relation to the slaughter of animals in regard to their food value. To do something which has not been done—to standardise what shall be known as meat inspection. Meat inspection is a large matter and surely it will be a larger matter. At present there is no uniform scale. Manchester is well served in her meat inspection, but there are municipalities that are lax in what they consider the minimum of safety of the public health. Some are more strict than others, and the butcher is the man who generally finds out these particular qualities. He would like to see Manchester tackle this question of the proper accommodation for the slaughter of animals and set up a standard which would be recognised. The subject is an old one, but is serious, and looming large in Liverpool.

In matters professional Manchester has followed

Liverpool's lead and, he hoped, with some satisfaction. Liverpool became interested a few years ago in veterinary education and arranged a post graduate course with diploma. The Manchester University subsequently adopted it. He hoped the question of going more fully into the subject of meat inspection and abattoir accommodation would be considered.

Mr. Councillor THEWLIS, responding, expressed great pleasure in having the opportunity of saying a few words on such an occasion to a profession which is so important and valuable to the community. He was glad to have accepted their hospitality, not only for his own sake but because of the regard which he had for the President and the President's late father. He felt in a difficult position in replying to Mr. Sumner, but he thanked him for the kindly spirit in which the toast had been proposed. So far as Manchester was concerned they recognised that the Ship Canal was one of the most wonderful events in their history, and productive of a degree of prosperity the like of which had not been seen before. There were many things to be thankful for in connection with the Ship Canal, and although it had not been possible to pay dividends to the investors he believed there was not one single thoughtful man or woman in Manchester who would say that the Canal should not have been made.

So far as Liverpool is concerned, he had not heard of it being criticised on any festive occasion, because in Manchester their hearts were so full of sympathy, and with that breadth of view Manchester people were credited with, they were glad to take a lesson if Liverpool was doing something better than Manchester. Only the other day an important leaf was taken from Liverpool's book in regard to the admission of children to picture palaces late at night. He was able to tell a deputation to the Watch Committee, who were opposing the adoption of such proposals, that they had been in operation in Liverpool for some years with remarkable effect. Municipalities learned from each other, and by so doing had produced in this country a system of local government which, to his mind, was the glory of the country to which they were all proud to belong. Those who spent most of their time in local government felt very strongly that municipal associations have contributed in the largest degree of all to the greatness of the country.

He had not an intimate knowledge of veterinary work, but in connection with his function as a magistrate he had to adjudicate in cases where owners were proceeded against for working horses whilst in an unfit state. He had been struck with the absolute fairness of the veterinary surgeons who had been employed to defend such owners. The profession is of far more value than most persons think. A vast amount of work was done in addition to treating horses and cattle: a good deal was done in the examination of food, and he was glad to know that so far as Manchester is concerned, whatever Liverpool may do, they did a great deal. He did not boast about Manchester, but only talked of facts. The Sanitary Committee did a great deal of work, and great attention had been paid by them to the milk supply, still the whole ground was not covered, and he held that in all big cities they should see to it that the whole of the milk supply is guaranteed to be pure.

He again expressed pleasure at being present and meeting many whom he had met before in other walks of life, and he hoped that the serious problems they were cognisant of and took deep interest in would still be grappled with as in the past.

Alderman TURNBULL also responded. He was more than pleased to be present, and he congratulated Mr. Locke on his proud position as President of one of the most important Associations there is in the United Kingdom. He knew no man more devoted to his work. It was also his privilege to know Mr. Locke's family.

He was a believer in free trade in most things in connection with the commerce and industries of this country, but at the same time he was an advocate of tariff reform so far as the veterinary profession was concerned, and he wanted to throw out a hint to them. He thought that when they were competing for the business of various municipalities there ought to be an understanding amongst the profession regarding their charges. He was on several large committees that had to deal with contracts for veterinary work, and he was afraid the profession did not adopt either the policy of "free trade" or of "tariff reform." There should be an understanding amongst themselves, for they ought to get a price which would be fairly remunerative for the services rendered. He devoted six and sometimes seven days a week to public service and was in close touch with the veterinary inspectors of the City. As a member of the Sanitary Committee, he had come into daily contact with Mr. Brittlebank's work for something like nine years and owing to his efforts the milk supply of Manchester is the best and purest there is in the United Kingdom. No man had done better work in this respect.

He wished to say that there is a kindly feeling between Liverpool and Manchester. They were practically one community and whenever prosperity of one city takes place prosperity in the other is bound to follow.

Mr. W. A. TAYLOR rose to propose "The President," and said: The only qualification for the toast I possess that I am aware of, and that I was unaware of until a very few days ago, and that is that I happen to be the father of this Association. I must politely intimate to the members of the fair sex present that I am not responsible for the actions of all my sons. I said I was the father of the Association, but father only by accident of circumstance in being the oldest living member of it. This Society, as most of you will have noticed in reading the title page of the menu card, is celebrating its fifty-first anniversary. I have known this Association for fifty-five years, and I have had the privilege of personal knowledge of every President. When a lad in my teens attending the old Owen's College, and studying chemistry under Sir Henry Roscoe, who is still alive and flourishing, I used to come with my old dad to the meetings, and proud I was to be the son of my father. Our profession itself is only 69 years old—one year short of the allotted span of man's life. Only in the year 1844 were we in receipt of the Charter of Incorporation from her late Majesty Queen Victoria, so that our profession is quite a young one. Recently, as members of it are aware, agitation has occurred in the high ranks of our representatives in Parliament, and a Departmental Committee was formed to enquire into the present state of the infant—veterinary science. It is not my duty to refer to that matter, but to-night we are glad of the presence of the President of that Departmental Committee, and I should like to assure him that though I do not know what my brothers' views are with regard to the suggestions of the Committee, I, personally, look upon them with favour. I do so for many reasons, but I will only mention one, and that is I desire to remind him that our profession is young, that our profession practically reared itself. It had to provide funds for the education of its students, and the most of our teaching colleges were private institutions. The Government did not support the poor veterinary surgeons as it might have done. We will let bygones be bygones, but I can assure Sir Alfred Hopkinson that what our profession is most in need of, after education of course, is that stuff one's grandfather used to say made the mare to go—money. If the State will aid the profession I think that they will find a response on behalf of the profession—an increase in the number of young men presenting themselves for graduation in our profession, and it will

follow, I think, that the scholarships, if instituted, will be an additional incentive in finding men required for the most important positions. This in passing.

Our forefathers knew the value and the power of union, and when this Association was formed fifty-one years ago it was formed with the idea of advancing, first of all the value of the profession, and secondly its interests. Looking over the long roll of Presidents of this Association, the name that stands out most prominently to-night is that of Locke. I remember the time, and doubtless those members of our City Council who are present to-night remember the time when the Chief Meat Inspector of the City of Manchester was a butcher. A very good man as a butcher. At that time our old friend Mr. Sam Locke became a member of the City Council and through his instigation, backed up by the efforts of this Association, the Markets Committee were prevailed upon to try a veterinary surgeon as meat inspector. Fortunately the man secured was a good man. I refer to the late Mr. King. What do we see to-day? In that day there was one inspector, to-day there is a chief and four assistant inspectors, and I can assure you they are all alert and all extremely keen. That is as it should be. I need not, after the remarks that fell from such able speakers as Councillor Thewlis and Alderman Turnbull, allude to the assistance given to the Medical Officer of Health of this City by our friend and ex-president, J. W. Brittlebank. His work is well known, he has been a much criticised man, and in certain callings of life, a much abused man. He steers his course straight, without fear or favour, and has the ability necessary to perform his duties. Therefore Manchester is not neglected, I think, in the way of food inspection.

Now I must ask you, and particularly the members of the Association, to consider our present President—Mr. Harry Locke. For fifteen years he has acted as honorary secretary of this Association. Fifteen years is a large slice in the lifetime of a man. They have been years of labour and, I believe, the labour of love. The members of the Association appreciate most highly his endeavours to fulfil the duties of the office which he so ably held. I ask members, and those who are not members, to grant what a President most looks for and most feels—the hearty support and co-operation of the members of the Association over which he presides. Let him see, by our attendance and by our efforts to increase the interest in the Association, that we appreciate what he has done and that we look forward to the future with confidence in him. Actions, it is said, speak louder than words. I believe it. But I am constrained to say that if for fifteen years Mr. Locke had been talking instead of working I am afraid he would have gone over to the body of suffragists. Fortunately for the existence of the Association he did not do so.

I have one other duty to perform before I resume my seat. It is on behalf of members of this Association to ask Mr. Locke to kindly consent to accept this silver tray as a slight token of our great personal regard for him, and (addressing Mr. Locke) I ask you, Sir, to take it as an expression of our best wishes to you, to Mrs. Locke and family in the near and distant future.

Mr. Taylor then handed the silver tray to Mr. Locke, and this toast was drunk with musical honours.

The PRESIDENT said that what little speech he had ready had been knocked out of his head by the totally unexpected presentation that had just been made to him. As they knew, he had occupied the position of secretary for fifteen years, and he was thankful to have enjoyed such good health as only to miss two meetings during that time. He wished to thank them for the kindly manner in which they had referred to his late father, and also for the personal compliments. History was said to repeat itself, and strange to say his father when President of the Association in 1885 was presented

by the members with a cabinet in recognition of his services as secretary. That present is still in the family and is treasured. His secretaryship had been a labour of love, and how the time had passed he scarcely knew. Obviously speaking with some feelings of emotion Mr. Locke again expressed thanks on behalf of his wife and himself for the handsome present which they would always cherish.

Mr. Woods, proposing "The Visitors," took exception to the word "visitor" as not conveying the warm and kindly feelings he wished to express. The word was so comprehensive (and he instanced types of visitors who were not welcome), he would prefer to use the term "Our Guests," as guests are always welcome. On behalf of the Association he said they felt honoured by the number of invited guests who had attended the dinner, and amongst them there was none they received with greater pleasure than Sir Alfred Hopkinson. He recalled having attended a class of Sir Alfred's for Latin and Greek, and also having heard his introductory address when appointed Professor at the Victoria University. He also wished to say how highly gratified the profession were with the report of the Departmental Committee. At the time there were statements made that it appeared strange that there should be a Committee dealing with veterinary education without having a veterinary surgeon upon the Committee. He thought that if every member had been a veterinary surgeon the report would not have been better. He hoped the report would not be lost sight of by Parliament, because it would undoubtedly be good for the country if it was taken favourably into consideration.

SIR ALFRED HOPKINSON, on behalf of himself and fellow guests thanked the Association for the hospitality and the charming manner in which they had been received. It was a matter of satisfaction to speak almost as a member of the Corporation. He was an outside man, but he always remembered his father's close connection with that body, and recognised and defended, both in public and in private, the work they were doing. If he were a member he would move a resolution that they should follow the example of Liverpool in one respect, but he would refrain from saying what it was. The members of the Corporation knew what it was quite well. From Mr. Woods' remarks they would gather that he was not afraid to undertake anything. Regarding the class Mr. Woods had mentioned he remembered being suddenly called upon one evening to take that particular class which, however, was not in his line at all. They got along badly, but if the lecturer was not good the students were. When he was asked to undertake the duties of President of the Departmental Committee in regard to veterinary education in the British Empire his friends wondered whether he was an expert on horses or an expert on the question of the milk supply. He was one of those people whose views are sometimes sought after and, in a parliamentary contest he was engaged in, the milkmen, who were against him, came to see him. (He forgot whether it was at the Reform Club or the Constitutional Club). He happened to have had a milk case before, and was well posted as regards the analysis of milk, etc., and they thought he must have devoted his life to the subject. So word went round that they might support his particular colour (he forgot which colour it was). The result, however, was not successful for him, but no doubt it was of great benefit to the country—he did not get in.

Allusion had been made that the introduction to the report of the Departmental Committee is out. He had not seen any comments upon it and had heard none until that night. He hoped the document would give the public a good deal of important information which the public had not got before about the veterinary profession. The thing that struck him most of all was that the profession had attended to the education of its own

members by itself and is doing so still. It is a remarkable example how members of the profession, without support, have carried on this work and are still making great personal efforts and sacrifice to further improve it, feeling the importance and the value of the profession to the public, both in State and municipal service, and also in private practice. He was not sure whether in another generation the horse may not be an extinct animal, at all events they would find specimens of it in the buildings recently erected. Still the profession would go on, and he believed in two directions. One direction would be in connection with the food supply of the nation. And in this direction alone an enormous field was open to the profession to do much special work of a highly technical character, and for which they were particularly qualified. Another way in which the profession will go on—apart from private practice—is in relation to the whole question of eliminating diseases of animals of various kinds. That is not a question that affects our own districts only—that is the first part of the business—but the empire as a whole. He believed there was a general desire to see what could be done to train men in the fullest way to meet developments through the advance of science, and a general feeling that the members of the veterinary profession are doing a valuable work in the progress made.

Mr. STRENT had great pleasure in proposing "The Ladies," although he approached the task with fear. It had been said that Paradise is inhabited chiefly by women, and men are only admitted after performing heroic deeds. He thought the ladies present had performed heroic deeds without receiving the hospitality that they deserved. After the National Veterinary Association's dinner last year, which was a great success, being graced by the presence of ladies, the Lancashire V.M.A. could not do otherwise than follow suit. In their profession, as in many others, it is the ladies who perform valiant deeds and assist a great deal in the progress and advancement of the different societies to which their husbands belong. He coupled the name of Mrs. G. H. Locke with the toast.

Mr. W. LOCKE, brother of the President, suitably responded on behalf of the ladies.

An excellent programme of music had been prepared and was highly appreciated. The artists were Madame Annie Radford, Mr. J. B. Ritcher, Mr. E. Thornley Dodge, and Mr. J. Wadsworth.

#### NORTH WALES VETERINARY SOCIETY.

A meeting was held at the Station Hotel, Llandudno Junction, on September 24th, 1912, at 2 p.m. The following members were present: Mr. O. Trevor Williams, President, Messrs. F. Booth, W. J. Bushnell, Owen Thomas, C. W. Cartwright, H. Williams, Richard Jones, hon. treas., L. W. Wynn-Lloyd, hon. sec.

Visitors: Messrs. David Keir and J. O. Rees.

Apologies for non-attendance were received from Dr. Evans, Mr. J. H. Wynne, and Prof. Share-Jones.

The minutes of the last meeting were read and confirmed.

#### CORRESPONDENCE.

The SECRETARY read a letter from Mr. W. Shipley, F.R.C.V.S., hon. sec. to the Victoria Benevolent Fund, thanking the Society for their handsome donation.

A letter from Mr. S. Stockman, M.R.C.V.S., asking that each member of the Society should subscribe to the Tenth International Veterinary Congress to be held in London in 1914.

It was resolved, that as half the surplus from the entertainments of the National meeting held at Carnarvon had been voted to the above Congress in 1914, the

North Wales Society had done its share in supporting the Congress.

A letter from Mr. T. C. Toope, M.R.C.V.S., Hon. Sec. of the South Eastern Veterinary Medical Association enclosing a copy of the present scale of fees of Veterinary Inspectors to County Councils. All members present agreed that the present scale of fees was very unsatisfactory and it was proposed "That all the Veterinary Associations should send petitions to the various County Councils with a view to raising the present fees."

These letters were left over until it was decided whether the Society was to be carried on or not.

The HON. TREAS. proposed that as the attendance at the last few meetings had been so bad, the society should be wound up, and each member join a larger society.

This proposition received no seconder.

Mr. BOOTH said it was good to have a society like this, as it kept one in touch with the outside world and we get information through it which we otherwise should not receive.

Mr. BUSHNELL supported this idea.

The HON. SEC. proposed that owing to the amount of money in hand the members be allowed to run without paying subscriptions for a year or two.

Mr. BOOTH suggested that the fee be reduced to 2/6 or 5/-.

Mr. H. WILLIAMS: Personally I should prefer to pay nothing, but I think the full fee should be retained.

Mr. C. W. CARTWRIGHT was in favour of a reduced fee.

Mr. BOOTH gave a notice of motion "That no fees be paid this year, and that the question of fees be discussed at the next meeting."

#### ELECTION OF OFFICERS.

*President.*—Mr. BOOTH was proposed by Mr. H. Williams and seconded by the Hon. Treasurer. Carried.

*Vice-president.*—Mr. H. WILLIAMS was proposed by the President and seconded by Mr. C. W. Cartwright.

The *Hon. Sec.*, Mr. L. W. Wynn Lloyd, and the *Hon. Treas.*, Mr. R. Jones, Towyn, were proposed for re-election by the President, and seconded by Mr. Booth. Carried.

#### SEPTIC ARTHRITIS IN YOUNG ANIMALS.

By DAVID KEIR, M.R.C.V.S., Llandudno.

Mr. Chairman and Gentlemen,—When your worthy secretary, Mr. Wynn Lloyd, asked me a few weeks ago to write a short paper for discussion at your Annual Meeting, I must admit that I felt rather afraid of tackling the job, but after a little persuasion I promised him that I would do my best to write a short essay. I do not intend to keep you very long for I know none of us are fond of long lectures, but my main idea is to run over the subject of "Septic arthritis in foals," briefly, and in so doing I hope to raise a few points for discussion, in which I hope most of us will join.

#### SEPTIC OR PYÆMIC ARTHRITIS.

Pyæmic arthritis, joint ill or navel ill, is a peculiar form of septic inflammation, especially affecting suckling herbivorous animals, and is characterised by swelling of one or more of the joints of the body, then with a tendency to pus formation. I intend to confine myself to the cause, symptoms and treatment of the disease in foals, for in the other animals, professional advice is seldom sought, slaughter being deemed more rational procedure.

Several years ago, navel ill was looked on as a very serious condition, and most clients knowing this, entertained little or no hope of a recovery, nor had they much faith in the various methods of professional treatment, but in these days the cause was obscure, and as we all know treatment is of little avail in any disease until the cause has been discovered. Within



recent years several experiments and observations have been conducted, with the result that the profession as a whole are perfectly satisfied that the primary seat of the disease is in the navel, and from there it spreads to various joints of the body.

#### ETIOLOGY.

The true cause of joint-ill has been discovered in the separation of two organisms, a micrococcus and a bacillus, and they are usually found together. These have been cultivated from cases of the disease and successfully inoculated into other sucklings, with the production of navel-ill in its most typical forms. I have read many authors to try and get a uniform pathology and bacteriology of these bacteria, but although most of them are of one mind in regarding these as the causal organisms, they (the authors) differ more or less in describing the exact morphological and cultural characters of the individual bacteria. The micrococcus appears to be present more frequently. It is larger than an ordinary coccus, being over one micron in diameter. It stains with most of the ordinary dyes, but does not retain Gram's stain.

The organisms are present in soils, manures, and all forms of filth, and it is only when the umbilical cord is contaminated with these media that the disease results. The infection may cause only simple phlebitis of the umbilical vein, but if the organisms are virulent, and mixed with pyogenic bacteria, the condition almost invariably degenerates into suppurative phlebitis.

Whilst, in fact, it is comparatively easy to deal with phlebitis of the jugular or mammary vein, surgical or medical assistance becomes extremely difficult in this case, because the inflamed vein, is situated deeply in the abdomen, and passes through one of the most important internal organs—the liver. After the cord is ruptured both the veins and arteries become plugged, and bleeding ceases. This plugging should end in organisation of the clot and obliteration of the vessels. If, however, the wound is infected micro-organisms make their way between the clot and walls and extend along the inner surface of the vein, infecting first the clot and then the vein, and thus setting up suppurative phlebitis.

Cases in which the cord has broken off too short to be properly ligatured, or where the floor of the stable or loose-box is in a filthy condition, are those which frequently become infected. Navel ill is oftenest seen in early foals, for these, owing to cold and rough weather, have to be kept in the stable, where they are inclined to lie a lot, and so expose the navel to infection.

The organisms set up an inflammation in the umbilical cord and its surroundings with thrombosis of the blood vessels of the cord. The thrombi, becoming infected with the bacteria, undergo suppurative disintegration and infection is carried to various parts of the body by the blood stream. Other authors state that owing to the plugging of the umbilical vessels with thrombi, all connections with the interior of the cord and the external air are shut off, and that the spread of the infective material starts from the peritoneum around the navel ring. But this theory is of little value, for if such were the case, fatal peritonitis would ensue and death result in a few days, whereas we all know that the average duration of illness of pyæmia arthritis is about two to three weeks, although acute cases may end fatally in a few days.

Certain people believe that there is a predisposition to the disease accompanying a peculiar conformation of cord, but this belief must be regarded as false.

#### SYMPTOMS.

The symptoms usually appear in a few days after birth, or in from two to three weeks. In nearly all cases a

few general symptoms precede the appearance of the arthritic affection. The animal appears dull, there is a slight rise in temperature 103° F. to 104° F., a disinclination to suck the mother, and a tendency to lie down a lot, but these premonitory symptoms may be absent, and the first indication may be a marked swelling of some of the joints. In all cases, the distension develops very quickly. Any of the joints of the limbs may be affected, and cases affecting the ribs and vertebrae have been recorded. The most common situations are the knees, hips, stifles, and hocks. The swelling, which is hot, tense, and painful, may start in the hips and spread to the stifles or hocks, or may start lower down and proceed upwards. In all cases there is great pain on pressure and marked lameness in walking. In some instances, the foals are unable to rise at all, and have to be held up to enable them to suck. This is particularly the case where several joints are affected. Along with these symptoms we generally have a foetid diarrhoea, or sometimes diarrhoea and constipation alternating. After slight exercise, the animal sweats very readily, owing to the acute pain, and soon becomes thin and debilitated. I have noticed in nearly all cases a yellow membrana nictitans, denoting liver disturbance. On examination of the umbilicus we usually find the cord and its surroundings hot and painful, and containing pus which can be squeezed out on pressure. But, in other cases, there are no visible changes in the cord, on account of its having healing up after being contaminated, and in my opinion these are the least favourable cases to deal with because there being no exit to the contained pus, it is absorbed with disastrous results.

Often, we have the joints bursting and emitting a foul smelling mixture of pus and dead tissue. No matter what treatment be adopted these cases are generally fatal. Again, owing to the metastatic nature of the disease we may have symptoms of various complications presenting themselves, such as those of inflammation of the lungs, or more often of the liver, but these do not come under our heading. In those favourable cases which do recover we usually have stiffness and swelling of the joints for a long time after the constitutional symptoms have abated, and in all cases recovery takes place slowly, and the animal's growth is stunted.

#### PROGNOSIS.

In all cases a guarded prognosis should be given, and in those where complications have set in the prognosis is very unfavourable. The most hopeful cases are those in which the foals are able to walk about and suck their mother, and in which the practitioner has been early called in. Persistent diarrhoea and a constant rise of temperature, especially after the continued administration of internal astringents and febrifuges, usually denotes an unfavourable termination.

On the other hand, recovery often follows when the diarrhoea has subsided and the temperature regains its normal.

#### PREVENTATIVE TREATMENT.

Considering the pathogeny of the disease, prophylactic treatment is first called for. Strict antiseptic measures must be adopted. The stable or loose box should have a bedding of clean straw, and be freely sprinkled with disinfectants. After birth the foal's navel should be thoroughly cleansed and the cord tied with an antiseptic ligature, about 1 in. to 1½ inches from the umbilicus. One of the best of navel dressings is that recommended by the Board of Agriculture: "Immediately after birth the navel string is to be ligatured with an antiseptic ligature and soaked with a solution of iodine in methylated spirits (1:20): in 24 hours afterwards and once for the next 3 or 4 days it is to be dressed with a 1:20 sol. of iodoform in flexible colloid. The iodine and iodoform act as antiseptics and

germicides, and the collodion forms a thin film over the umbilicus, which prevents the access of any organisms.

Various other dry dressings such as boracic acid and iodoform, tannoform, etc., are used, and all serve the purpose very well. As a preventative, some farmers apply a small sheet of antiseptic cotton wool, fixed to the umbilicus by four strips of pitch bandage, but the majority of clients would not go to such trouble until perhaps the case was beyond all professional aid, and then they would almost sacrifice anything to get a recovery.

Again I think that the best preventive is to turn the mare and foal out to grass as soon as possible after birth, if the weather is at all favourable; the hygienic conditions are better and the atmosphere purer, the foal's constitution becomes stronger and so enables him to resist diseases which are so common in filthy stables.

#### CURATIVE TREATMENT.

Most practitioners have their own method of treatment, and each thinks his own the best, but in all cases, the employment of antiseptics in the blood stream should be employed and give the best results. Of these about the best is Pot. chlor. gr. x.-xx. twice a day along with sp. æth. nitrosi and liq. amm. acet., which act as stimulants and febrifuges. Where there is persistent and foetid diarrhoea, I have seen good results follow the employment of quinine sulph. gr. iij.-viij given with dil. sulphuric acid in water. The quinine acts as an antiseptic and the dil. sulphuric acid as an astringent in the intestinal canal. With regard to the umbilicus, if sinuses exist in the cord these should be carefully probed to find their extent, and opened up to allow of all discharge. Afterwards they should be washed out daily with a sol. of carb. acid, cresol, zinc chlor., etc.

Sometimes when the sinus is blind, the application of a mild blister round the umbilicus has the result of checking any further suppuration. But if the sinus is not blind the application of a blister only leads to further absorption of pus, with more serious results.

The treatment of the swollen joints should consist in fomentation with hot water for 20 minutes twice a day, then thoroughly drying and rubbing in a liniment composed of: R Ext. belladonnæ, glycerinum, sapo mollis, sp. tereb, aqua (boiling) ad W. qt. This relieves the pain and helps to promote absorption. Some practitioners leave the distended joints alone until the animal becomes a yearling, and then apply an absorbent blister, but although this undoubtedly lessens the distension, it does not cause it to disappear. Others aspirate the joints, but although this has been more or less successful in the hocks, it has been followed by disaster in most of the other joints. Where the joints burst and discharge, the treatment is purely surgical. They should be syringed out with weak antiseptic solutions until all the pus has escaped, and then treated as an open joint.

I was very amused to read the following treatment for "pyæmic arthritis" in an American journal, the other day. "Freely open the enlarged joints, allow the liquid to escape, inject with hydrogen peroxide, and when thoroughly cleansed and all pus clots removed, inject some iodine and take care that it is all drained out; then paint the outside with tincture. Internally hydra. iod. rub.; potass. iod. of each ʒi. rectified spirits ʒij. aqua ad. ʒviij. One tablespoonful in one ounce of the mare's milk 3 times a day. If milk is not used the mouth of the foal will be blistered. I also make an autogenous bacterin from the pus of these colts, which seems to be a great help; this is injected every 4 days subcutaneously. If the colt is in a weak condition a tonic is indicated. If diarrhoea is present, I use sulpho-carbolates compound, which checks this condition

in a very short time. If the above treatment is carried out carefully, 85% of affected colts recovered." I may say that I have never tried this treatment, but thought I would mention it, as it might come in useful for some case you wanted to experiment on.

Within recent years various new drugs have been employed in the treatment of pyæmic arthritis, and I should like to give you the history of two cases treated with nuclein and acetozone, with good results.

*Case I.*—Black Shire filly foal, four weeks old; both hocks severely distended and very painful, sweating, disinclined to suck, and lying a lot; been quite healthy the previous day. Gave pot. chlor. twice a day internally for ten days, and rubbed the hocks with the belladonna liniment. In a fortnight the filly was well again and able to suck, but her hocks were still distended. These were injected with a 1-500 sol. of acetozone in distilled water, injecting four drachms in each hock every third or fourth day for four times, at the end of which the swelling had disappeared and no bad results remained.

*Case II.*—Bay Shire foal, six days old; unable to rise, showed great pain in knees, hocks, and all four fetlocks, the navel was wet but smelled quite sweet. He received the same internal treatment as the first case, and had the whole of his legs fomented and rubbed with the belladonna liniment. In addition he received a hypodermic injection of nuclein 40 minims. This was continued for three days when the swellings subsided and the foal did well. There is no doubt that the nuclein has a wonderful power of increasing the leucocytes, but unless used in the early stages its value is not attended with beneficial results.

#### DIFFERENTIAL DIAGNOSIS.

There is only one disease which may be confounded with pyæmic arthritis, and that is acute articular rheumatism, but if care be exercised, disease of the joints in sucklings, a few days or weeks old, especially if accompanied by suppuration in the navel, is indicative of pyæmic arthritis. Further, the formation of abscesses in articular rheumatism is very rare, so also is the appearance of articular rheumatism in suckling, a very uncommon condition.

#### POST-MORTEM.

These findings vary according to the spread and intensity of the disease, but most cases show inflammation of the umbilical cord and its structures, with thrombosis of the vein and arteries. Thrombosis of the portal vein and its branches in the liver are occasionally seen. In the joints, the synovial membrane is thickened and injected, and the synovial fluid is opaque, increased in quantity, and mixed with pus and purulent coagula. The articular cartilage is ulcerated and destroyed, the ends of the bones sometimes becoming necrotic. The muscles of the affected joints have undergone fatty degeneration, so also have the heart, liver, and kidneys. Finally, we find metastatic foci in most of the internal organs, exhibiting the spread of the disease and denoting new centres of infection.

A very interesting discussion ensued, in which all the members present took part.

A hearty vote of thanks was accorded to the Essayist, after which the members adjourned to a high tea.

It was agreed that the next meeting of the Society be held at Wrexham.

#### Curious Parasitic Effect.

Extract from letter of client:—Several horses in this neighbourhood have rubbed the hair off the root of their tails, which gives them the appearance of being hog-maned.



## NORTHAMPTON COUNTY INSPECTORS AND THE TUBERCULOSIS ORDER OF 1913.

A meeting of the Veterinary Inspectors of the Northants County Council was held at the Grand Hotel, Northampton, on Monday, March 3rd. The object of the meeting was to discuss generally the new Tuberculosis Order, and to decide as to the methods by which the veterinary provisions of the Order could best be carried out both in the interests of the public and of those veterinary practitioners upon whom, presumably, the major portion of the work will devolve. The whole of the Veterinary Inspectors of the county were present, viz.: Messrs. C. W. Page, Banbury; W. W. Grasby, Daventry; R. R. MacGregor, Market Harborough; C. W. Crofts, Northampton; H. H. Nicholls, Oundle; W. W. Beal, Thrapstone; D. Forwell, Towcester; J. R. Dykes, Wellingboro; and Trevor Spencer, Kettering. The circular issued to Local Authorities, with copies of the Order contains a request to such authorities that they will give immediate consideration to the steps to be taken to put their officers in a position to carry the Order into effect; the meeting consequently decided to ask the Contagious Diseases Committee to receive a deputation of Veterinary Inspectors in order that the whole of the veterinary provisions might be laid before them from a practical standpoint, preparatory to their adoption of any particular system by which the veterinary duties shall be performed.

The following gentlemen were appointed as a deputation to wait on the Contagious Committee in the event of the necessary permission being forthcoming: Messrs. W. W. Grasby, C. W. Crofts, C. W. Page, J. R. Dykes, and Trevor Spencer.

During the meeting, which was characterised by great unanimity and which lasted about two hours, the following matters in connection with bovine tuberculosis were thoroughly discussed, viz.:

Some difficulties of diagnosis:

The importance of employing the tuberculin test as the chief aid to diagnosis:

The necessity for tuberculin to be under Government control, procurable only by medical men and veterinarians, and of standard manufacture:

The impossibility of carrying out inspections of animals exposed for sale in public sale yards with a view to the detection of tubercular disease:

The question of the valuation of a suspected animal and whether this would be part of the veterinary inspectors' duties:

The question of fees for employing the tuberculin test and for other work in connection with the Order.

It was further decided that a short account of the proceedings be sent for publication to *The Veterinary Record* with a view to procuring, if possible, the co-operation of veterinary inspectors of neighbouring and other counties, in order to secure, as far as practicable, a uniform system of procedure on the part of those upon whom the duties of carrying out the veterinary provisions of the Order will, presumably, devolve.

Veterinary inspectors who may desire to co-operate with the Northamptonshire inspectors for the above-mentioned purposes are invited to communicate, collectively or individually, with the undersigned.

TREVOR F. SPENCER, M.R.C.V.S.

Kettering, March 4.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended March 1	16		17				3	14	64	138	2	35	341
Corresponding week in	1912	23		23			7	14	94	190	8	49	545
	1911	21		23			3	9			16	34	299
	1910		32				7	16			9	15	160
Total for 9 weeks, 1913	119		133				31	104	741	1621	91	302	3477
Corresponding period in	1912	229		257			30	60	1204	2902	122	532	6856
	1911	199		225			42	164			250	307	3369
	1910		274				61	185			244	203	1539

† Counties affected, animals attacked: London 13, Middlesex 1.

Board of Agriculture and Fisheries, March 4, 1913.

IRELAND. Week ended March 1	Outbreaks							6	1	18
	...	...	...	...	...	...	...			
Corresponding Week in	1912	...	...	...	...	...	...	3	9	22
	1911	...	...	...	...	...	...	1	10	22
	1910	...	2	...	...	...	...	...	23	...
Total for 9 weeks, 1912	...	...	...	...	...	...	...	65	167	35
Corresponding period in	1912	...	1	1	...	...	...	23	167	27
	1911	...	3	3	...	...	...	22	169	26
	1910	...	4	6	...	...	...	17	191	6

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, March 3, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, March 4.

SPECIAL RESERVE OF OFFICERS.  
ARMY VETERINARY CORPS.

The following to be Lieuts. (on probation):—  
J. A. McMenamin, R. C. Wheeler, late Cadet Corpl.,  
Royal Veterinary College of Ireland, O.T.C. Dated  
March 3.

Col. F. W. Forsdyke arrived from India on Feb. 25th on completion of a tour of Foreign Service, and has been posted to York for duty as Assistant Director of Veterinary Services. Northern, Scottish, and Western Commands.

The undermentioned officers arrived from India on March 5th, on completion of a tour of Foreign Service and have been posted to the stations stated against their names:—

Capt. L. L. Dixon to Brighton; Capt. T. Lishman and S. Black to Aldershot.

The following officers, Army Veterinary Corps Special Reserve, joined at Aldershot on March 4th, for a three months course of instruction:—

Lieuts. J. A. McMenamin. W. E. Phipps, and R. C. Wheeler.

Lieuts. A. S. Mathias, Army Veterinary Corps Special Reserve, is about to be seconded to take up an appointment as Government Veterinary Officer, Straits Settlements.

## OBITUARY

JOHN TOMS, M.R.C.V.S., Ivybridge, Devon.  
Graduated, Lond: Dec., 1892.

Mr. Toms died on Feb. 10th from Epithelioma of the larynx. Aged 47 years.

## CORRESPONDENCE.

## "A SURPRISE."

Sir,

I beg to thank Mr. Crichton for his kind and experienced reply to my letter "re" the above. Previous to reading that reply I was not aware that it was a usual occurrence for a cow to have twin calves, part with one cleansing at the time, and the other eight days later. I believe there are two cleansings for twin calves however.

In the case I quoted I could not find any cleansing when I carefully explored the genital passage, the "os uteri" was almost completely closed, there was no straining or discharge from the vulva and to all appearances she has got rid of all the foetal membranes.

As a rule I think cows which calve prematurely often retain their cleansings for an undue period, but it is not my experience to find appreciable systemic disturbance unless the cows have retained these membranes more than a week and septic absorption has taken place. Usually my clients leave them alone for about that time and then I remove them, irrigate the genitals with mild antiseptic fluid (but do not pump it into the womb) and do not see them again. The symptoms Mr. Crichton describes are those of septicæmia. I use uterine pessaries with success, and quite agree with him. Crichton about washing out uterus. Again thanking him I remain, yours faithfully,

W. E. BLACKWELL.

Norfolk House, Towcester, March 3rd.

## INSPECTORS UNDER "CRUELTY" ACT.

Sir,

I think the enclosed will explain itself, and there may be some veterinary surgeons who would like to apply for the posts at £500 per annum. At any rate the question of all these appointments going to medical practitioners should not be lost sight of.—Yours, etc.,

Dalegarth, Windermere.  
March 18.

FRANK W. GARNETT.

## CRUELTY TO ANIMALS ACT, 1876.

Sir,

I understand the Secretary of State is about to appoint two additional inspectors under the above Act, and I write to ask if Members of the Royal College of Veterinary Surgeons are eligible for the posts, as it would appear that they are more qualified for the post than ordinary medical practitioners. An early reply will oblige.—Yours truly,

FRANK W. GARNETT.

To Private Secretary, Home Office, London.  
Feb. 26, 1913.

Home Office,  
Whitehall, S.W.

Dear Sir,

I beg to acknowledge the receipt of your letter of the 26th instant, and to forward you the enclosed memorandum relating to the appointment of Inspectors under the Cruelty to Animals Act. I may call your attention to the last paragraph, and while consideration would not be refused to applicants possessing veterinary qualifications, I should, perhaps, warn you that a considerable number of applications have already been received from qualified medical men. If you desire to send in an application, perhaps you would be good enough to do so as soon as possible.—Yours faithfully,

J. T. HENDERSON.

Frank W. Garnett, Esq., M.R.C.V.S.  
28th February, 1913.

## CRUELTY TO ANIMALS ACT, 1876.

## APPOINTMENT OF INSPECTORS.

The Secretary of State is about to appoint two additional Inspectors under the above-mentioned Act. The appointment will be for one year in the first instance, and afterwards probably for five years. The initial salary will be £500, together with the travelling allowances usual in the Civil Service; and if the appointment is continued will rise by annual increments of £20 to £600.

The duties of the Inspectors will be to pay frequent visits to all premises within their respective districts which are registered under the Act, in order to see that the provisions of the law and the conditions imposed by the Secretary of State are fully obeyed, and to carry out any other duties of inspecting, reporting and advising with which they may be entrusted by the Secretary of State. They will be required to give their whole time to these duties.

For the purposes of inspection, England and Wales will be divided into two districts. The Inspector for the Southern District will reside in London, and will also act as Assistant to Dr. Thane, the Chief Inspector. The Inspector for the Northern District will reside at a convenient centre within his district. The Inspectors may, as circumstances require, be transferred from one district to the other or to Scotland.

Candidates for these posts, who should be registered medical practitioners, should apply to the Private Secretary, Home Office, London, and their applications should be accompanied by any testimonials and evidence of their qualifications which they desire to submit.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1288.

MARCH 15, 1913.

Vol. XXV.

## VETERINARY INSPECTORS AND THE TUBERCULOSIS ORDER.

Of late, veterinary surgeons have shown an increasing tendency towards concerted action in dealing with public bodies and companies—a practice which, for a long period in its history, the profession was apt to neglect. One example is the recent movement regarding county veterinary inspectors' fees, and the rates of insurance companies, in which veterinary surgeons in various parts of the kingdom are now following the lead of Kent. Last week we published some account of another and still more commendable one in the Midlands.

The whole of the county veterinary inspectors of Northamptonshire met to discuss the details of the pending Tuberculosis Order, with the object of deciding how its veterinary provisions could best be carried out.

After full discussion, it was decided to attempt to approach the County Council by means of a deputation to confer upon the working of the Order. As local authorities have already been officially requested to consider the steps to be taken to put their officers in a position to carry the Order into effect, there is little doubt that this or any other County Council will welcome an opportunity of hearing the views of the veterinary inspectors upon the subject. And certainly a preliminary conference between the local authority and its veterinary staff before the Order comes into force will be the best method of ensuring its most efficient working.

It will be seen that this embraces much more than the question of fees. Fees were discussed by the Northamptonshire veterinary inspectors at their meeting, and will have to be settled with the County Councils—for the great majority of the veterinarians who will have most to do with working this Order are not whole-time men. But there will be other questions to be settled between veterinary inspectors and local authorities—questions of procedure, and, perhaps most important of all, questions of diagnosis. The Order will place new and heavy responsibilities upon veterinary inspectors. They will require to know exactly what is expected from them, and at least some members of local authorities will require to learn something of the position of the veterinary inspector, especially with regard to diagnosis.

The Northamptonshire inspectors, through Mr. Trevor Spencer, invite the individual or collective co-operation of inspectors of other counties "in order to secure, as far as practicable, a uniform system of procedure" for all who are concerned in working the Order. The qualifying phrase is well

advised, for complete uniformity of procedure throughout the country may well prove unattainable: but intercommunication between inspectors of different counties should help us to approach it.

## THE USES OF ARECOLINE.

### CEDEMA.

With reference to the recent discussion in *The Veterinary Record* on the use of arecoline the following clinical notes may be of interest.

Two years ago I was asked to attend an aged bay gelding, the property of an officer. The owner told me that the horse had carried him during the previous hunting season and he had noticed on one or two occasions that he seemed to become fatigued rather early in the day. At the end of the season, the horse fell heavily with him whilst jumping a fence in a point to point, and lay for some time unable to rise.

*Symptoms.*—At the time I first saw the horse, about three months after this accident, the owner drew my attention to a large cedematous swelling under the abdomen, extending from the ensiform cartilage to the pubes, and laterally for about eight inches on either side of the middle line. He informed me that this swelling had appeared a few days after the accident and that it had persisted ever since.

On examining the horse I found that it was a case of ascites. The circumference of the abdomen was enlarged out of all proportion, and the swelling was firm and rather painful. Auscultation revealed the sound of moving liquid in the abdominal cavity.

The appetite was normal, likewise the temperature and respirations, but the pulse was weak, soft and very slow.

I kept the case under observation for a few days. There was a good deal of cardiac trouble, the beats of the heart being most irregular and very weak; the impulse was at times imperceptible. After trotting the patient fifty yards it was impossible to differentiate the heart sounds at all, and there was manifest distress. Lt.-Colonel Newsom, who kindly examined him for me, was of the opinion that the disturbance was functional, and there did not appear to be any valvular disease. The cedema was attributed to the disturbance of circulation consequent on the disordered action of the heart.

*Treatment.*—For ten days I gave him a dram of Pulv. Digitalis Fol. with a view to steadying the heart, but without any beneficial effect. The case being no better at the end of a month, I decided to give him arecoline, which I saw was recommended by several authors for ascites. They all stated that

this drug should be used with great caution in cases where there was any cardiac complication, but as the horse was quite worthless in the state he was then in, I decided to chance it.

He received a grain to start with, and another in forty-eight hours. At the end of a week I had injected five grains (P. D. & Co. Hydrobromide).

The effects of the drug were soon exhibited, the first being profuse salivation. The bowels acted freely, the feces being soft, and at times liquid. The quantity of urine that he passed was greatly increased. The action of the heart was rather more irregular than before, and still very feeble. There was a certain amount of cerebral disturbance, the horse becoming excited on coming out of the stable. The pupils were somewhat contracted.

At the end of the first week the abdomen was somewhat reduced in size and the swelling was softer, but still sensitive.

For the next fortnight I gave him a grain every three days. The condition of the heart remained about the same, but the oedema was commencing to decrease and, after exercise, was hardly noticeable.

The owner now wished to send the horse out to grass. I recommended that the grazing should be supplemented with plenty of good food, and also warned the officer not to be surprised if at any time the horse was found dead in the field.

I never saw the case again, but I believe that it was sold about a year later.

(It would be a convenience to those who use hypodermic medicines in tablet or tabloid form to have printed on the label the quantity of water in which to dissolve them).

#### COLIC WITH IMPACTION.

During the last summer I used the same drug on three cases of severe colic due to impaction of the bowel. In each case the colon was found on rectal exploration, to contain a mass of solid feces, and in two of the cases there was a good deal of straining.

*Treatment.* The usual measures were first taken. The horses were given warm injections into the rectum, gentle exercise, and an ounce of Chloral hydrate in a quart of warm water; but when the pain had been persistent for two hours I dissolved a tablet of Arecoline (2 grains) in a dram of distilled water at the body temperature, and injected it into the subcutaneous tissues.

In each case there was a copious evacuation of the bowel contents within half-an-hour, bringing immediate relief. Salivation came on very quickly—in one case within three minutes of injecting the drug. I again noticed that there was more cerebral excitement.

The drug certainly appears to render the action of the heart irregular and slow. It may set up this effect in various ways, *e.g.*; 1. By direct action on the heart muscle. 2. By stimulation of the vagus centre. A similar effect is produced on the human heart by smoking to excess. 3. By its action on the intrinsic ganglia in the cardiac muscle.

E. P. ARGYLE, Capt. A.V.C.

#### THE PASSING OF THE BRAN POULTICE.

In the treatment of punctured wounds of the horse's foot one has always two problems to face—the efficient antisepsis of the wound, and the softening of the immediately surrounding horn.

The rule-of-thumb treatment in the past has sought to roughly effect this dual desideratum by a more or less long continued poulticing with wet bran, or other vegetable substance, followed by antiseptic pads or Stockholm tar.

The bran poultice has always been unsatisfactory. It is unwieldy, horses are apt to eat it. It needs frequent renewal on account of its tendency to become rapidly septic. It is eminently unsurgical, though this is hardly a practical argument, as in veterinary work in general practice the expedient will always take precedence of the ideal. In a country like South Africa, where nails and scrap iron abound, and where they seldom find a soft muddy surface in which to lose themselves, punctured foot is very common, and one has only too ample opportunity for investigating this class of injury. The bran poultice appears to be even more unsatisfactory here than at home. The rapid evaporation in the dry air speedily extracts the moisture from the poultice, and the subsequent desiccation leaves the horn harder than ever. It can be almost certainly stated that the bran poultice in a hot country is practically useless.

About a year ago we began to use in our veterinary hospital what we have found to be a great improvement on bran poultices, *viz.*, plasters of Stockholm tar applied from the start.

Our routine treatment is roughly as follows:

The puncture is located and, after a little paring of the immediate horn, cauterised with pure carbolic acid. A plaster consisting of a pad of tow impregnated with Stockholm tar is then applied and retained in position in the same way as a poultice.

After twenty-four hours the horn is found to have become greatly softened, presumably by the tar preventing evaporation of the natural horn moisture. Further and necessary paring is then an easy matter. In bad cases, after providing for free wound discharge the foot is soaked in a 5 per cent. solution of copper sulphate for an hour, and the tar poultice reapplied. In slight cases soaking is unnecessary, and the tar compress is replaced after the paring.

As with a poultice of bran, one has to be careful in some cases not to carry on the tar treatment too long. When there has been considerable under-running of the horn by pus, necessitating moderate stripping, it is important to replace the tar, so soon as antisepsis is obtained, by some hardening agent, like burnt alum. Otherwise the effect is to produce much bulging of the new tissue in the form of granulations covered by a thin skin of horn that will not harden. Apart from the more successful results, the far greater ease with which the light tar compress can be applied and retained in position

and the saving of time to the dresser alone make the above treatment vastly preferable to the old-fashioned bran poultice.

WAKEFIELD RAINEY.

Bloemfontein, S.A., March 12th.

#### TÆNIA SERRATA.

*Subject.* An Irish terrier.

*Diagnosis.* Infested by tapeworms.

*Treatment.* The animal was given a purgative, then for a few days kept on a fluid diet, subsequently Tenaline m<sub>j</sub> to each lb. body weight in an equal quantity of oil was administered, after twenty minutes, tapeworms sufficient in quantity to fill a pudding bowl were passed.

Curiosity prompted a count as to the numbers and this was done carefully, each parasite being examined under a dissecting microscope to ensure that the head was present, the result showed a total of 81 parasites of an average length of 18 inches or a total added length of 123ft. 6in. I would be pleased to know if this is a record.

The owner of the dog who has had much experience with dogs, had previously been in the habit of using Santonin or Ext. filicis maris, but he is now thoroughly convinced as to the efficacy of Tenaline.

T. D. YOUNG.

Central Markets, Smithfield, E.C.

#### BACILLUS OF NECROSIS.

By HENRY GRAY.

In the *Annales d'Institut Pasteur*, Tome xxvi, numéros 8 et 10, pp. 625-634 et 802-806, 1912 (and in *Journ. Comp. Path. and Therap.* Dec. 1912) Césari and Alleaux, two distinguished young French veterinary surgeons, in lengthily discussing the morphology, biology and the physiological effects of the bacillus of necrosis, claim that it was first observed by Löffler in 1884, but consider that it should be termed the bacillus of Schmorl, who in 1891 devoted much attention to it, defined its nature and established its importance in veterinary pathology (*vide Hoare's System of Veterinary Medicine*, p. 298).

Evidently these authorities, like nearly every writer on veterinary pathology, have overlooked the prior claim of A. Lingard and E. Batt, who, when connected with the Brown Institution, London, in 1883, investigated the ulcerative stomatitis in the calf, commonly called calf-diphtheria, determined its bacteriology and histology, and reported their conclusions in the *Lancet*, May, 1883.

Lingard also found the bacillus of necrosis, termed by Klein the "bacillus of ulcerative stomatitis in the calf," in noma in the human subject as Jensen many years afterwards did in the noma or gangrenous stomatitis seen so commonly in certain infectious diseases in the dog.

Klein refers to Lingard and Batt's work, and illustrates the histology of the lesions and morphology of the bacillus in his *Micro-organisms and Disease*, 1896, p. 292.

In face of these facts if any priority of nomenclature is claimed that priority should, so far as I am aware, belong to Lingard and Batt; and that the bacillus should be termed the bacillus of Lingard and Batt or the Lingard-Batt bacillus.

It is surprising that none of the veterinary periodicals of 1883 report Lingard and Batt's work; at least, the only reference to it that I can find is in the *Veterinary Journal*, an appeal from Lingard for material.

#### ABSTRACTS.

##### ONCHOCERCA GIBSONI, THE CAUSE OF WORM-NODULES IN CATTLE.

J. A. Gilruth, D.V.Sc., M.R.C.V.S., etc., and Georgina Sweet, D.Sc., who have been investigating this subject for some time, have communicated the results of their latest inquiries to the Royal Society of Victoria. Those inquiries have chiefly lain in two directions—viz. the history of the disease in Australia, and the method of its propagation. There is circumstantial evidence of the appearance of these nodules in Queensland at least forty years ago; and the disease is now very common indeed in cattle in the northern parts of Australia. Buffalo seem to be exempt from it. The authors think that the probabilities point to either some cattle which were imported from Timor to Port Essington some time between 1824 and 1840, or to Indian cattle imported to the same place at about the same time, as the original introducers of the disease.

Regarding the question of transmission, the authors have experimentally attempted to infect animals by (1) direct implantation of a nodule, (2) bedding unaffected animals upon soil on which badly affected ones had habitually lain, and (3) transferring lice from badly affected animals to unaffected ones. All these experiments yielded negative results. The authors point out that from these results the great probability is that the disease is transmitted by means of a biting fly which acts as the intermediary host of the parasite; and they add that to obtain actual proof of this theory will be very difficult. Nevertheless, they are considering the possibility of experimenting in this direction, and facilities for the purpose have been asked from the Federal Government.

The authors conclude by pointing out that should a biting fly prove to be the transmitting agent, the prospects of exterminating the disease would become very remote.

##### METASTATIC STRANGLES.

Schweinhuber, of Dettelbach, records the case of a gelding, 2½ years old, which was suffering severely from strangles, and died with symptoms of colic. Post-mortem, it was found that death was due to peritonitis, due to pus which had gained access to peritoneal cavity. The pus had come from a swelling situated in the mesentery of the small intestine, under the left kidney. The swelling was lumpy in shape, was about four inches long

and nearly three inches thick, and weighed 4½ pounds. Its interior showed five caverns, filled with creamy pus, one of which had burst. The wall of the swelling was only from 1-5th inch to 2-5th inch thick. Microscopical examination of the pus revealed the *streptococcus equi* in great numbers. The condition had arisen from a metastatic process which had commenced from the glands of the upper part of the neck.—*Münchener Tier. Woch.*

#### YOHIMBIN IN THE TREATMENT OF INCONTINENCE OF THE URINE IN THE DOG.

Stünkel, of Leipzig, records the case of a fox-terrier, 2½ years old, which for about fourteen days had suffered from incontinence of the urine. The dog had already been treated for some little time by the administration of salol, washing out of the bladder, and electricity; but no good results had followed.

Stünkel found the animal free from fever, and showing no pain upon palpation of the abdomen. The urine, obtained by the catheter, gave no indication of inflammation in the urinary organs; and in other respects no appearance of an organic disease could be detected in the dog. The animal's demeanour, however, was noteworthy; in place of showing the characteristic spirit of the fox-terrier, he seemed exceedingly shy and timid, and was reported by the owner to be very nervous. Urination occurred frequently without any straining or pain, and was apparently involuntary; generally only small quantities of a clear fluid were passed. Increased thirst was not observed.

Stünkel regarded the condition as due either to debility of the sphincter vesiculæ or to functional disturbance of the nervous centre in the spinal cord governing the bladder. Recovery, he thought, might be brought about eventually by improving the tone of the bladder muscle; and yohimbin, on account of its action upon the blood-vessels and the urogenital centre, seemed adapted for this purpose. (Prof. Fritsch, in 1911 and 1912, reported favourably upon the effects of yohimbin in similar conditions in man).

Yohimbin was therefore given by the mouth in tablets of 0.005 gramme (about 1-13th grain) each. Two tablets were given daily, and after six had been administered, Stünkel was told that improvement had set in and that the frequent micturition had ceased. Four more doses were given, and then recovery seemed to have been attained. Four days after the administration of the last tablet, however, a relapse appeared; so the treatment was instituted afresh, ten more tablets being given. At first three tablets were given daily, but, as the dog became excited and restless under this amount, the dosage was reduced to one tablet daily. After this no further appearances of excitement were observed, and spontaneous urination did not appear again after the one relapse. When Stünkel wrote his report, eight weeks had elapsed since the conclusion of the treatment, and recovery seemed complete. The whole demeanour of the dog had also changed, he had become less nervous, and the appetite, which

previously had been rather capricious, had become regular.

Stünkel attributes the recovery in this case, which very probably originated in nervous disturbances, to the effect of the yohimbin. He further suggests that, on account of the special action of the drug, it might also be used with success in the frequently occurring senile incontinence of urine in dogs.—(*Berliner Tier. Woch.*)

W. R. C.

#### SCOTTISH METROPOLITAN VETERINARY MEDICAL SOCIETY.

The annual meeting was held in the Royal (Dick) Veterinary College, Edinburgh, on Saturday, Feb. 1st. The chair was taken by the President, Mr. Peter Wilson, M.R.C.V.S., Lanark.

The SECRETARY, Mr. James Henderson, read the minutes of the last meeting, which were approved.

Mr. CAMERON said he wished to call attention to a matter that arose out of the minutes. At the Dundee meeting the Secretary was instructed to bring forward the subject of anthrax, and to arrange for a practical demonstration. The great bulk of the last meeting paid no attention to the practical demonstration. The meeting dwindled away, and there was no official finish, and no opportunity was given to propose a vote of thanks to the Secretary for the superior manner in which he carried out the remit given to him. He now moved that they record a hearty vote of thanks to Prof. Gofton for the manner in which he had given the demonstration on anthrax. Those who stayed till the end of the meeting were splendidly rewarded by the demonstration in the adjoining room.

The SECRETARY, Mr. Henderson, seconded the motion, which it was agreed to enter in the minutes of the present meeting.

The Secretary intimated several apologies for absence from members, including Mr. James Peddie and Mr. Alexander Wallace.

*Correspondence.* The CHAIRMAN intimated that a letter had been received from the Victoria Veterinary Benevolent Fund asking a subscription. Last year they had given a donation of one guinea, and they were asked to repeat the donation this year. The officials of the Fund appeared to think the donation last year was to be a yearly occurrence. This matter had been before the Council, and they had decided to put it before the Society. They suggested that there should be a donation of another guinea, but that they should intimate that it was not to be considered as a yearly donation.

Mr. STORIE said it was necessary that they should make it clear that it was not an annual subscription. The suggestion of Council was adopted.

The CHAIRMAN intimated a letter from the Royal Sanitary Institute, with reference to their Congress which is to be held this year at Exeter. The Council had decided to hold over consideration of the communication till next meeting, seeing that the Congress would not be held till July.—Agreed.

The CHAIRMAN said the next communication was a letter from Mr. R. Rutherford intimating that he was going to resign his membership of this Society. The Council had considered the letter, and thought Mr. Rutherford had been such a valuable member of the Society since its inception that it would be advisable to delegate someone to call on Mr. Rutherford to see if he would not reconsider his decision to resign. The Council suggested that the Secretary might be nominated to undertake that duty, if the Society approved.



Mr. STORIE said he had a conversation with Mr. Rutherford, and thought that he would not come back to the meetings, but it was in their power to make him an honorary member. Mr. Rutherford was compelled to retire from active membership owing to his health.

Mr. CAMERON said there might be special occasions on which it was desirable that Mr. Rutherford should take a prominent part in their proceedings, and he thought they ought to endeavour to induce him to remain on the membership. If he would not continue as an active member, they should certainly put him on the honorary list.

Mr. INGLIS seconded Mr. Storie's motion that they make him an honorary member.

Prof. GORTON said that, even though a deputation waited on him and failed to get him to reconsider his resolution, it was still open to them to appoint him as an honorary member, and the Council had agreed to recommend the Society to send a deputation before appointing him honorary member. He proposed that the recommendation of the Council should be followed, leaving it open to them afterwards to elect him an honorary member, if he could not see his way to remain.

Mr. CAMERON seconded.

The CHAIRMAN said it was both a recommendation from the Council and the will of the meeting. It would be recorded as the finding of the general meeting.

A communication from the National Veterinary Association concerning the fees and allowances to Veterinary Inspectors under County Councils was laid on the table.

Prof. GORTON said that the Council of the National Veterinary Association had been approached with the view of taking up the question of fees paid to veterinary inspectors under County Councils in particular, and they had collected information from all parts of the country as to the fees received for work under the Contagious Diseases (Animals) Act. With these details before them they had drawn up a suggested scale of fees that they thought fairly reasonable and proper for the work that the veterinary inspectors did. He had received a considerable number of copies of the scale of fees, and a tabulated list of the fees paid in different parts of the country to veterinary inspectors. This had been done with the object of putting into their hands such information as would enable them, if they desired, to make an effort to improve the pay received by the profession. The initiative must rest with the individual inspectors. These papers had been sent for distribution amongst the members of the different Societies in Scotland.

The CHAIRMAN said he had received a communication from the Tenth International Veterinary Congress making a further application for funds. Professor Gorton would make a short statement with regard to the matter.

Prof. GORTON said he was undertaking this because the whole thing had been done through his hands before Mr. Henderson took the office of Secretary. The Society had subscribed seven guineas to this Congress—five guineas last year and two guineas the year before. They had received from members, £34 6s. 6d. as promises, of which £25 8s. had been actually paid over.

*Financial Statement.* Prof. GORTON submitted the financial statement for the year ending December 31, 1912, which was received and adopted on the motion of Dr. Bradley, seconded by Mr. Riddoch.

*Next Meeting.*—The CHAIRMAN said they held their meeting generally in April or May. If convenient for a sufficient number of members to go, he would be pleased to give them an invitation to Lanark.

Dr. BRADLEY moved that they hold their next meeting in June at Lanark, which was seconded by Mr. Storie and agreed to.

*New Members.*—Mr. WILLIAM ANDERSON, M.R.C.V.S., Pittenween, having been duly proposed and seconded, was balloted for membership of the Society and admitted.

Mr. J. R. HAMILTON, Dundee, and Mr. ARTHUR, Auchtermuchty, were proposed as new members by Professor Gorton, and seconded by the Chairman.

#### ELECTION OF REPRESENTATIVES TO THE COUNCIL OF THE NATIONAL ASSOCIATION.

The CHAIRMAN said that the Secretary was a fixed member, and they had the privilege of nominating two other representatives to the Council of the National Association. Mr. Peddie and Dr. Bradley were on for the current year.

The SECRETARY moved the re-election of these gentlemen.

Dr. BRADLEY thought the President of the Society should represent them. He himself was a representative of the Scottish Branch, so he proposed Mr. Wilson and Mr. Peddie.

Mr. STORIE seconded Dr. Bradley's motion.

The Chairman agreed to allow his name to stand. The nominations were then agreed to.

#### VOTE OF THANKS TO RETIRING OFFICE-BEARERS.

The CHAIRMAN said that before giving his Presidential address there was one very pleasant duty that ought to be performed. That was the proposal by this Society of a vote of thanks to the gentlemen who were retiring from office at this time. Both President and Secretary were retiring: they had very ably filled their respective posts, and well-deserved the honour of having a vote of thanks bestowed on them. (Agreed.)

#### PRESIDENTIAL ADDRESS.

PETER WILSON, M.R.C.V.S., Lanark.

Gentlemen,—I cannot proceed to the giving of an address, without in the first place thanking you for the honour you have conferred on me by electing me the President of this Association. I can assure you that I am deeply sensible of the honour you have done me, and I find it difficult to express my thanks to you. If you find that I am not eloquent I can assure you I am at least sincere.

It is usual for the President to give an address on assuming office, but I find it is a very difficult matter to fix on a suitable subject. After considering a few, I fixed on the status of the veterinary profession, and of the veterinary surgeon, as the one on which I should say a little. It is a subject which has been periodically discussed in the veterinary press, generally with the view of showing up how unfairly treated the profession and its members are by the general public at all times, and occasionally by the governing boards and those in authority.

The veterinary profession is still in its youth, and has the misfortune to be sprung from very common roots, which are still known to everyone. Many of the shoots have been known by even comparatively young men who love to retail their indecorous, wild and uncomely behaviour, and often imply that the present day product is not any better than its wild uncultivated archetype.

The profession, too, is always connected with the financial side of the affairs of its employers, and its usefulness is judged more by the financial results in single instances connected with each employer than by the benefits it has been able to confer on the whole country. The result being that the profession is judged from too narrow limits, the reasoning being done from isolated instances, and wide deductions drawn from deficient premises, but nevertheless widely circulated,

and generally greatly to the detracting of the body corporate.

The traditions, which have been handed down for generations amongst horse and cattle owners, are held in almost superstitious awe and reverence, and are difficult to eradicate.

A man who has been amongst animals the most of his life and is descended from animal owners, frequently thinks (in fact he has it impressed upon him as an article of faith) that he knows everything about them, both inside and out, in health and disease. Some men, even if they have only once driven a horse or owned a cow would lead one to believe that they are perfect oracles regarding all things equine or bovine. These men, and they are numerous, cannot appreciate the present day scientifically trained veterinary surgeon. They can jump quickly to conclusions, because they have few starting points and not much knowledge between, and for the same reasons are unaware of the enormous number of chances that their conclusions are wrong. They do not understand the difficulties produced by a wider knowledge in arriving at an accurate estimate of an animal's condition. They look upon the time taken to examine an animal thoroughly, and analyse the symptoms shown, as a sure indication of a want of knowledge, if not a certain indication of absolute ignorance. They prefer, in fact almost worship any man who is bold enough to give an immediate diagnosis, who will utter a word with a medical sound about it but of wide significance, and never trouble about going into the details, which are necessary to arrive at a fairly accurate idea of the lesion and its situation.

The profession has also suffered from being educated entirely apart from the older and larger academic institutions. Professional education in the past has been entirely given in small isolated institutions, outwith the ken of nearly every one (except those directly interested), and the *alumni* have missed the *kudos* given by association with University life.

The lowly origin of the profession, the nature of the relations between his employer and the veterinary surgeon, in his own knowledge, traditional belief, which every horse owner and cowkeeper has and which serves and has served to keep their opinion of the worth of the veterinary profession very low, the indifferent nature of the educational institutions for veterinary science, the fact that until recently at any rate they were practically non-existent, so far as recognition of their worth and useful work is concerned, to all in authority about educational matters, are some of the reasons why the status of the veterinary profession is below that of the other learned professions. However, the veterinary profession is not where it once was; it has risen, and is still rising in the estimation of other learned professions, and is now deemed worthy of a place in the curriculum of more than one of the great universities of the country. It has over and over again been able to demonstrate the useful part it can play in conserving the resources of a country both during peace and war. The result is, that instead of being looked on more or less as a necessary evil to be tolerated and neglected as often as possible it has been raised to a position of prominence and power in the councils of the governing and administrative offices of the country.

Although this has been brought about more by the brilliance and outstanding merit of a few than by the general high standing of the whole body, the effect has been to raise the status of the whole profession, and to put it in a position more in accordance with its present-day acquirements than it would otherwise hold.

Not so very many years ago it was more or less felt that a young lad was in a way defaming himself by becoming a veterinary surgeon, was practically banning himself from decent society, and relegating himself to such company as he could find in the public bars of his

town. Now it is not so. The rise in the public estimation which the profession has taken, has put a stop to any such feeling. But the rise has been due more to the prominence given to the profession by the public appointments, to which the members have justly laid claim, than to any sudden rise in the estimation of the general practitioner. The status of the profession can still be raised and the profession is worthy of any advance that can be produced. There is therefore still something for every member to do for his profession, who loves it, and desires to do it honour—and who does not?

Nothing to my mind shows up more prominently the difference between the veterinary and other learned professions, and the relative status of their members than this: When a man enters any other learned profession, no matter what his parents or ancestors may have been, he enters at once into the higher social spheres. Whereas, when a man enters the veterinary profession, and goes amongst strangers, he does not get directly into the same society as a minister, doctor or lawyer would. He has to prove that he is a gentleman, that he is sober, clean, honest, and courteous, that he has merit. Then by-and-by he will make an entrance, provided that he be so inclined, can find the necessary time, and possesses sufficient means. In them it is taken as a matter of course, in him it must be proved. In them, society recognises gentlemen, because they bear the hall-mark of a certain education, which has the credit of making men gentlemen, in him society sees nothing but the veterinary surgeon, and he has the rest to prove.

This is partly due to ignorance of the educational requirements of the veterinary profession at the present day, but not entirely so; it is also due in part (and in some districts the greater part) to a rooted prejudice against the members of the profession, which has come down from former generations. By their removal the status of the veterinary surgeon would be greatly enhanced, and the removal of the latter would permit the educational endowments to be more generally recognised, and full credit to be allowed for them.

Is it possible that this prejudice could be overcome? That it could be there is no doubt. It is only for the members of the profession to determine that it shall be done.

How could it be overcome? By each member of the profession acting the part of a gentleman, always demonstrating, in season and out of season, that there is nothing connected with the profession or with the duties entailed thereby, which has the least derogatory influence on a man's morality, but that a man can be a veterinary surgeon and at the same time a gentleman in thought, word, and act.

Members should also always be careful to act the gentlemanly part toward each other. The public will come to respect a body of men, individually and collectively, who respect each other.

The veterinary profession is a noble profession. It gives its members full opportunity to employ and develop every talent that man possesses—not for selfish ends, but that he may be able to his best for the suffering brute creation. Veterinary surgeons should be amongst the broadest-minded, noblest, most unselfish, and humblest men on earth, and I have no doubt the time shall come when they will be recognised as such, and given their proper place in Society.

Gentlemen, I am assuming office with a feeling of great diffidence. I have a feeling almost of fear lest the Society may suffer in prestige, or prove to be less useful or prosperous, because I am holding the Presidentship. A novice must show many defects, and perhaps may merit severe criticism; but I ask you to be ready and whole-hearted with your assistance and support, so that you shall ensure the continued success and prosperity of our Society.

Should any member deem me capable of rendering



him any assistance, I shall be very pleased to do what I can for him.

I have now only to thank you for your very patient hearing; and to thank you again for the signal honour you have done me, by electing me your president.

Principal DEWAR said he thought the President had been rather too modest occasionally, so far as the profession was concerned. But leaving that out of account they congratulated him on his presidential address, and he had pleasure in moving a hearty vote of thanks to him for his services on this occasion. (Applause).

#### DISCUSSION ON

#### MR. JOHN BURNS' MILK AND DAIRIES BILL.

Opened by Mr. JOHN RIDDOCH, M.R.C.V.S.

Mr. Chairman and Gentlemen,—This Bill does not apply to Scotland. It applies to England and Wales only. The main objects of the Bill as set forth in the memorandum are to provide for:—

- (1) The more effective registration of dairies and dairymen.
- (2) The inspection of dairies and the examination of cows therein:
- (3) The prohibition of the supply of milk from a dairy where such a supply has caused or would be likely to cause infectious diseases, including tuberculosis:
- (4) The prevention of the sale of tuberculous milk:
- (5) The regulation of the importation of milk so as to prevent danger to public health arising therefrom:
- (6) The issue of regulations for securing the supply of pure and wholesome milk:
- (7) The establishment by local authorities in populous places of milk depots for the sale of milk specially prepared for infants.

"The Board of Agriculture and Fisheries propose to issue an order under the Diseases of Animals Act, 1894, dealing with tuberculous cows, and providing for the payment of compensation in cases of slaughter by the local authority. The Treasury are prepared, subject to the assent of Parliament, to sanction the payment from the Exchequer of one half of the net amount paid by way of compensation for a period of five years."

This proposal of the Board of Agriculture if carried out would be of more value than anything contained in the Bill. I consider, however, that only three-fourths value should be given in cases of slaughter, and that the whole of the funds should come from Imperial sources.

Section 1 of the Bill deals with the registration of dairies and dairymen, and where there are several cow byres on a dairy premises, one registration covers the lot. We have a better arrangement under the Cattle-sheds in Burghs (Scotland) Act, 1866. This Act requires each byre to be inspected, and if found suitable to be licensed for one year. Each byre is licensed separately and the number of cows which it may contain stated in the license. This prevents byres being overcrowded, and dairymen keeping cows in unlicensed premises can be prosecuted. Dairymen who keep the largest number of cows are often the greatest sinners in this respect.

Section 2. "The Medical Officer of Health for any sanitary district shall have power at all reasonable hours to enter any dairy situate within the district, and inspect the dairy and the persons employed therein, and if accompanied by a veterinary inspector or some other properly qualified veterinary surgeon, to inspect the cattle therein."

You will observe that it is the medical officer who is to inspect the dairy, the persons employed therein, and the cattle, but he must be accompanied by a veterinary surgeon when he inspects the cattle. I wonder what the veterinary surgeon is there for if he cannot inspect

the cattle. This section and sub-sections are taken from the Public Health (Scotland) Act, 1897, Section 60 with certain modifications. Sub-section 2 of that section, however, reads: "The Local Authority shall be bound forthwith . . . by a veterinary surgeon approved as aforesaid to examine the animals therein," but this Bill appears to restrict the inspection of the cows to the medical officer and to him only.

Sub-section 3 of Section 2 gives the medical officer power to take samples of milk from any cow or from any teat which he may require, but the same privilege does not seem to be granted to the veterinary surgeon. Sub-section 4, however, requires every dairyman to give reasonable assistance to both medical officer and veterinary surgeon and provides a penalty for obstructing either in the execution of their duty.

Section 3. The veterinary inspector may give a report to the medical officer who must send it along with his own report to the Local Authority, the Local Government Board and the Board of Agriculture. This section also gives the medical officer power to issue an interim order to stop the milk supply from any dairy in the case of the spread or suspected spread of infectious disease.

Section 12.—"If a person knowingly sells or offers or exposes for sale or suffers to be sold or offered or exposed for sale for human consumption or knowingly uses or suffers to be used in the manufacture of products for human consumption, the milk of any cow which has within six months to his knowledge given tuberculous milk or which is suffering from tuberculosis of the udder or which is emaciated from tuberculosis, he shall for each offence be liable on summary conviction to a fine not exceeding ten pounds."

Six months is a long time to go back. Whenever a cow is discovered in Edinburgh suffering from tuberculosis in any form, she is at once ordered to be removed within twelve hours.

Section 14 is rather important:—"The Local Government Board may by order require the Council of any County Burgh or urban district to appoint, or combine with another such council in appointing, for the purposes of this Act, one or more veterinary inspectors, or to employ for those purposes any inspector or other officer appointed by the council under the Diseases of Animals Act, 1894; and any such order requiring a combination of councils may provide for all matters incidental to such combination, and in particular, how the expenses incurred are to be apportioned."

You will observe that the appointment of veterinary inspectors is purely optional. It is left to the Local Government Board who may or may not insist on their appointment, and without veterinary inspectors no efficient dairy inspection can be carried out. "The Local Government Board after consultation with the Board of Agriculture may make such general or special orders as they think fit for the purpose of carrying this Act into effect." If this Bill was anything like complete in itself, additional orders by the Local Government Board would not be required.

The first and most important part of milk supervision is the veterinary inspection of the cows giving the milk, and the elimination of all diseased animals. In Edinburgh and some other large towns we have regulations—perhaps somewhat defective—but far superior to anything contained in this Bill.

I consider that all dairy cows giving milk to the public should be regularly inspected by veterinary surgeons. Those cow-byres where the cows are being replaced more or less every week should be inspected at least once a month. Dairy farms in the country, where the farmer rears his own cows and sells off only the old ones might be inspected at longer intervals, but when we know that a tuberculous udder may develop within a fortnight or three weeks, a month I think is the longest

interval which should elapse between inspections where newly bought in cows are continually being added to the herd.

In Edinburgh with a population of about 2,700 cows 30 to 40 diseased animals are peremptorily removed from the byres every year as a result of veterinary inspection.

In Glasgow with the same regulations similar results are obtained. Manchester, Sheffield and some other English towns have adopted a regular and systematic veterinary inspection of dairies with excellent results, as shown by the greatly reduced number of milk samples now examined which contain tubercle bacilli since veterinary inspection was adopted.

The only inspection provided for in this Bill is that when a suspicion of the milk induces the Medical Officer of Health to visit the premises and do the inspection with or without a veterinary surgeon.

I consider that the veterinary inspector should work in harmony with the Medical Officer of Health, and give that officer all due deference on account of his superior position, but the veterinary inspector has also a very important and responsible position in the inspection of dairy cows, and that position this Bill almost entirely ignores.

An editorial in last week's *Veterinary Record* finishes with the following sentence: "This Bill is a sorry substitute for the systematic veterinary dairy inspection now in force under local powers in many districts but which powers will be abrogated under this Bill."

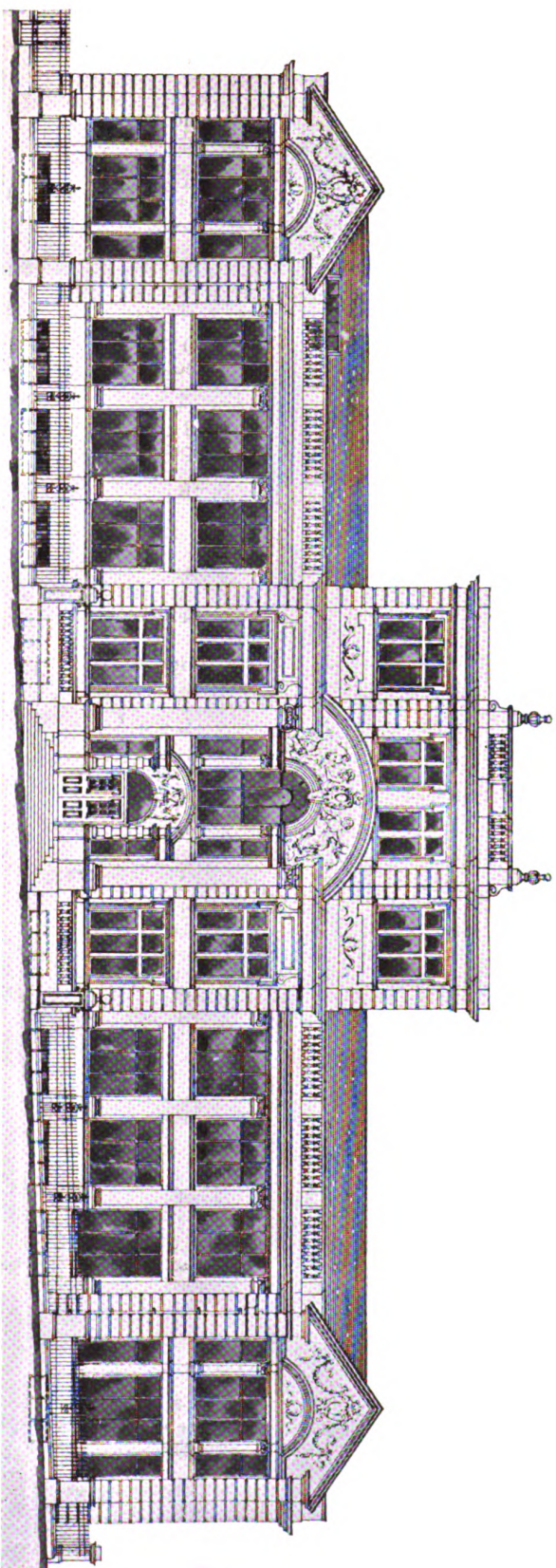
Principal DEWAR said they had to thank Mr. Riddoch for the way he had gone over the Bill and taken out the points that affected them as a profession. So far as Scotland was concerned, the Bill affected them to this extent, that a somewhat similar Bill would be passed shortly for Scotland, and probably it would be modelled on similar lines. There was a good deal in this Bill which would not stand criticism from their point of view, and to these matters Mr. Riddoch had called attention. It stated that the Medical Officer of Health, when he inspected the cows, was to be accompanied by a veterinary surgeon. It did not say that the veterinary surgeon stood with his hands in his pockets and saw the Medical Officer of Health inspect the cows. It fell to the members of the profession to see that their position was not only maintained but strengthened if such a Bill was passed. It should be the veterinary surgeon who inspected the cows and reported. Mr. Riddoch had called their attention to the time allowed to a dairyman to be sure that he was not dispensing tuberculous milk to the public. Six months no doubt was a long time. A month was long enough for a veterinary inspector to be absent from a dairy byre. It ought to be compulsory also in the Bill that local authorities, at any rate those who had a considerable burgh population under them, appoint veterinary inspectors under the Act, if they were not appointed already. In some remote country districts where dairying was not much carried out, that expense might be saved, but they ought to be required to call in a veterinary inspector under the Diseases of Animals Act if they had not a veterinary inspector under the Milk Shops Order. He called attention to the fact that these clauses were moulded to some extent on the Public Health (Scotland) Act. They were not strengthened, but weakened. They were not so good as in the Public Health Act. They had a long, severe and determined struggle before they got the Public Health Act as good as it was, and their profession would not have got these clauses, but for the assistance of the Highland and Agricultural Society and the Chamber of Agriculture. If these Societies had not taken that up in the House of Commons, the clauses, in this connection, of the Public Health (Scotland) Act would not have been so effective.

A fact mentioned in the Bill as to an attempt to be made by the Board of Agriculture to eliminate tuberculous cows, affected them most. There was no use discussing the proposed Order until they saw it. An Order of this kind was passed in 1909, and he had no doubt it was withdrawn because the Government threw the onus of providing compensation on the Local Authorities. Now they thought they would get the Local Authorities to pay half of the compensation. It was possible that they might do so. Now the Government proposed to restrict their payment of half to five years. Perhaps they thought the Local Authorities, if they began, would ultimately pay the whole of it. If carried out effectively there would be less need for compensation.

Mr. STORIE said he had not acquainted himself with the details of the Bill, more especially as it did not affect Scotland directly. What occurred to him was that the Bill had been influenced very much by the Medical Officer of Health. The Medical Officer seemed to be jealous about the veterinary surgeon having much to do with carrying out the Act. It was natural that the medical officer should be at the head of affairs, as it was assurance against damage to public health by the use of bad milk; but the veterinary surgeon should not be left at the mercy of the medical officer. The veterinary inspector should have an independent position to inspect dairies and byres at certain periods. He cannot be altogether free from the medical officer, because the inspection was concerned with the human consumption of milk and the public health, but it was unfortunate that the veterinary inspector's position was not more assured.

Mr. THOMSON said he was quite at one with Mr. Riddoch and Principal Dewar. He had been a colleague of Mr. Riddoch's for almost 21 years. If anything had been uppermost in their minds it was elimination of tuberculous cows from Edinburgh, and no one had given more attention to the subject than Mr. Riddoch. When they saw the Bill they felt there was nothing definite in it to give veterinary surgeons power. Those of them who were acquainted with dairy cows knew that there should be inspection at least once a month. In the case of contagious mastitis, the condition of the milk was dangerous before the udder was much affected. He hoped that if the Bill came to Scotland those who had the interest of the profession at heart would show that they had the strength and backbone to take up a strong position on the matter.

Mr. R. G. ANDERSON spoke as a visitor. He thanked Mr. Riddoch for the way he had dealt with this subject. He had picked out the weak points of the Bill very clearly. He himself had taken a great deal of interest in the subject. He was at a meeting once where the Bill of Mr. John Burns was rather laughed at. It seemed to him at that time that as it was likely to come forward, it was worth their while to pay attention to it rather than that a Bill on entirely new lines should be promoted. With this Bill before them they seemed, as a matter of fact, to be up against a thing they did not like, with great difficulties in it. He thought the veterinary surgeon was so well qualified now-a-days that he deserved to have a perfectly independent position in any work he was called upon to do, even though it had reference to public health. A good deal of nonsense had been talked about public health. The assumption was that because of public health the medical officer was a little god, and that all others took a secondary position. It seemed a tenable position that anything that affected public health, and had its source in cows, gave the veterinary surgeon sufficient grounds to occupy an independent and strong position. They should express an opinion that the veterinary surgeon should have quite an independent position, and not simply be called upon when the medical officer had the notion that perhaps it was required.



ROYAL (DICK) VETERINARY COLLEGE, EDINBURGH : FRONT ELEVATION OF THE NEW BUILDINGS.

*Architect, Mr. David M'Arthur, Edinburgh.*



Professor GORTON said he had not given the Bill very close study; his knowledge of it was very superficial. In glancing over it there was one or two points which struck him. The first was that it seemed to him this Bill, put into the hands of the medical officer, and of him alone, the power to inspect cows and dairies. It was usual in all Bills to at least give the medical officer of health power to depute his authority in respect of inspection. In this Bill he must do it himself and nobody else; he could not depute it to anybody, so far as he could make out. It struck him particularly that Clause 12 had been drawn by men who sat down to draft a clause in a form to make it absolutely useless. They could not have succeeded better if that had been their chief object. It was practically impossible to prove in a Court of Law that any dairyman was knowingly using infected milk. That left him with the power and authority, and no one could order him to remove the cows. The clause as it stood, it left the dairyman in the position he was in before the inspection began. These were the three points that struck him.

Mr. CAMERON said that there were not many more individual points they could criticise besides those with which Mr. Riddoch had dealt. The item to which his attention was first drawn, and one which ought to be emphasised, was as to confining the scope of the Bill to England. There was no reason to differentiate between one part of the kingdom and the other. Why should there not be a veterinary inspector appointed for every district, just as there was a medical officer of health, who should give a certain number of inspections every year? If he ascertained that there was a suspicious case it should be his duty to inspect it, as was done in cases under the Contagious Diseases (Animals) Act at present. It would not be advisable to fix upon an inspection every month, because all districts are not situated alike. The dairy life of cows in large cities was shorter than in many other parts of the country, and there would not be the same necessity for frequent inspection where they were not shifting cows so often. But there should be a certain minimum number of times specified for inspection by the veterinary surgeon. Why should that inspection only take place when and at the very moment the medical officer of health required it? That was an absurd and ridiculous stipulation. He thought that they should ask the assistance of the Highland and Agricultural Society or some such body to frame regulations that would be suitable for Scotland.

The SECRETARY said it would be observed from the newspapers that the Secretary for Scotland could not pledge the Government as to next session's legislation, but they had every intention of introducing a Scottish Bill at the earliest practicable moment. There had been at least two Scottish Bills already projected, one by Mr. Watt, and another by Lord Pentland. He read out the titles of some of the clauses of Mr. Watt's Bill, and said that these seemed to be along the right lines. The other Bill presented by Lord Pentland was not so drastic. There was to be inspection about once a month. It would be better for the Local Government Board to make rules as they went along, because if a veterinary surgeon were under requisition to inspect the cows once a month, it might be impossible on account of prosecutions and attending post-mortems. Lord Pentland proposed the payment of veterinary inspectors who would devote the whole of their time to the business. There must be inspection of all dairies once yearly by the medical officer of health and the veterinary inspector, but it was not essential that the two officials should be so closely associates, as in the Burns' Bill. Both of these Scottish Bills were much in advance of Mr. Burns' Bill. They had taken almost whole sections out of the 1897 Bill and incorporated them in the Scottish Bills. It would be a great calamity if they did not get the

Scottish Bill about the same time as the English Bill, because all the cows that were suspected in the North of England would be sent to Scotland, which would be a dumping-ground for thousands of English cows suspected of being tuberculous. There was therefore every necessity for insisting on having a Scottish Bill concurrently with the English one.

Principal DEWAR said that while they had talked of the Bill being against the interests of their profession, it would be as well to make it clear that it was not from a purely selfish point of view they looked at it. While it was against the interest of the profession, they looked at it as being against the interest of the public. It was only a veterinary surgeon who was able to detect disease in cows. He, personally, had many good friends in the medical profession, but he had never met a medical man who made any great pretence to a knowledge of the diseases of their own animals. They all sympathised with Mr. Cameron, who was a thorough true-bred Scotsman, and was unfortunately domiciled in England, and felt himself in an awkward position.

Mr. CAMERON said it was "Great Britain and Ireland and Berwick-on-Tweed." Was the Bill just to apply to registered dairy cows the same as at present? Was the joiner's, blacksmith's, steward's and shepherd's cow to be left out as at present? Did their children not require care and attention? Was it just those in cities whose children required to be protected from tuberculous cows? The life of cows in a city was very short, and in many cases there was no time to develop tuberculosis. It was in country places where there were single cows that they got more tuberculosis than was to be found in large cities, so the Bill should apply to every cow supplying milk to the people.

The CHAIRMAN said that they had had a very good discussion on the Bill. With reference to sub-section 2, under Section 2, so far as he saw, there was provision for veterinary inspection of the dairy cows. The medical officer of health, for the purpose of inspection of the cattle, is to be accompanied by the veterinary inspector or other qualified veterinary surgeon. That was the only place in the Bill which referred to an actual inspection by a veterinary surgeon, and it applied to cases where probably there would be a dispute between two medical officers of health as to the existence of disease. In sub-section 3 it should be provided that the medical officer of health should act on the report of the veterinary inspector, and, as Mr. Riddoch had said, the veterinary inspector should have power to take samples of milk equal to that of the medical officer of health. One advantage which would be obtained under the Bill, that was not got under the Dairies and Cowsheds and Milkshops Act, was that it applied to products manufactured from milk for human food. He thought that no man should be allowed to have a cow in his possession for six months after it had been proved to give tuberculous milk. There should be a way of getting rid of it, and he thought the Bill should be strengthened accordingly. There was an idea that the owner might fatten it and sell it for butcher meat within six months. As this Bill only applied to England in the meantime, Scotland would be exposed greatly to the importation of diseased cows, as had been well pointed out by Mr. Henderson. In order to prevent this, something ought to be done by making the Order to be issued by the Board of Agriculture and Fisheries applicable to Scotland as well as to England. They would then have power under that Order, if it was the same as was issued in 1909. A veterinary inspector in this country would be able to order a tuberculous cow to be taken back to the place it came from, as under the 1909 Order. With an Order like that, Scotland would be protected against importation of diseased cows from England. Under Section 17 the Local Government Board had power to prevent the importation of milk likely to cause disease. A consider-



able amount of milk was imported into the North of England from Scotland, and it would hamper the milk trade between England and Scotland to a considerable extent, because the authorities of England would have power to order the inhabitants of Scotland to produce milk according to the ideas of the English authorities before they would allow it to be imported into England. The authorities in England should look into that matter to see if it could not be altered. There had been a good discussion on the Bill. It was their duty to pass a very warm vote of thanks to Mr. Riddoch.

Mr. RIDDOK, in reply to Mr. Cameron, said that those who kept one or two cows for their own use to sell small quantities of milk to their servants, need not be registered under this Bill. In regard to infected cows being sent from districts in England to Scotland, there would not be much chance of that: if the owners were offered compensation for slaughtering them they would take the compensation rather than send them away. Nothing had been said against the few remarks he had made, and he did not require to answer any of the other speakers.

Mr. CAMERON moved "That this meeting, having discussed the Bill, records its opinion that it is very unsatisfactory in regard to the duties of veterinary inspectors and other veterinary practitioners, and calls upon the Council of the Royal College of Veterinary Surgeons to take active steps for its improvement."

Mr. STORIE seconded the motion, which was unanimously carried.

The CHAIRMAN proposed a hearty vote of thanks to Mr. Riddoch for introducing in such an able manner the interesting discussion on the Bill. (Agreed.)

On the motion of Professor Gofton, Mr. Wilson received a vote of thanks for his conduct in the chair.

JAMES HENDERSON, Hon. Sec.

#### THE TRANSVAAL VETERINARY ORDINANCE.

Dear Mr. Hunting,

I think it will be of some interest to the veterinary profession to know that the Transvaal Parliament has passed the enclosed section of the Municipal Ordinance which came into force in January last.—Believe me, yours faithfully,

JAS. IRVINE SMITH.

P.O. Box 1620, Johannesburg.

#### Part 3, Chapter 191, Section (b) of Para. 2.

- (b) "A veterinary surgeon approved of as aforesaid may by writing under his hand order any living animal or any carcase or butcher's meat which has been or is liable to be seized under this Section to be destroyed or so disposed of as to prevent it being exposed for sale or used for the food of man."

#### The Dick College Extension.

A few weeks ago warrant was granted by the Dean of Guild Court to the Board of the Royal (Dick) Veterinary College for the demolition of the existing buildings at Summerhall and the erection of the Clinical Department, and on Feb. 13th warrant was asked of the Court for the erection of the main buildings of the College there, which will complete the present scheme. The site consists of one and a half acres having a frontage of 250 feet, with a depth of 280 feet. This necessitates the removal of the somewhat characteristic buildings of a bygone age between Hope Park U.F. Church and Summerhall Square, including the Summerhall Brewery, until lately occupied by the United Breweries Company, Limited.

The main buildings of the proposed college are devoted to teaching and administration, and comprise separate departments for anatomy, chemistry, physiology, pathology, biology, materia medica, medicine and

obstetrics. They are entirely separate from the buildings forming the Clinical Department, and are so arranged on the ground as to allow of a large open courtyard in connection with the latter and a quadrangle to the former, which will be laid out with lawns, shrubbery, and flowers.

In connection with the various departments there are provided 17 laboratories and five lecture theatres, with appropriate preparation rooms adjoining, large dissecting room to accommodate 62 students, hall for special functions seated for 300 persons, with ante-rooms, board room, principal's room, and accommodation for the secretary's department, and public waiting room, etc., and professors' private rooms. Extensive laboratory accommodation has been provided for research into animal diseases, the aim of the authorities being that the institution should not only train students, but should also extend knowledge of the cause and prevention of disease. Excellent lavatory accommodation is provided throughout the buildings, and abundance of storage; provision has also been made for laboratory and other extensions should such be required. There is a large general museum and several departmental museums.

#### THE CLINICAL DEPARTMENT.

In the clinical department provision is designed for the treatment of all kinds of animals, there being accommodation for horses, cows, and a couple of sheep pens, five isolation and general wards for cats and dogs, with enclosed "runs" adjoining the latter, two operating theatres for large and small animals respectively, with dressing-room adjoining; post-mortem room, stocks and X-ray apartment, and rooms for teaching pharmacy and giving surgical demonstrations. It is proposed that the stable and other fittings throughout the buildings shall be of the most hygienic patterns. There is a large special laboratory in connection with this department and accommodation for the smaller animals. A bath for horses has been provided, and provision is made for teaching practical shoeing; while there is the necessary food and bedding stores, etc., required for such an establishment. The professors have their private rooms, and there are waiting and consulting rooms adjoining.

The main entrance to the College is in the centre of the front elevation, and facing west: but a separate entrance is provided for the Clinical Department from Summerhall Square, giving access through an arched gateway in stone screw into the courtyard. Over this gateway is to be placed the well-known figure of a horse at present over the front of the building in Clyde Street. There will be a glazed roof over the path around the courtyard, also a glazed balcony on the upper floor, enabling the staff as well as clients to go to all parts of the building under cover.

All the laboratories and lecture theatres are well lit both by vertical lighting, and, where possible, also by means of properly situated roof-lights, while provision is made for darkening the latter during daylight by means of blinds controlled from the professors' platform during lantern demonstrations. The heating and ventilating have been amply provided for, and a complete telephone installation with the central exchange.

Internally, the utmost simplicity will be exercised in the construction, all unnecessary ornamentation being avoided, and the most scrupulous hygienic conditions observed. The ground in front will be enclosed with a suitable stone cope and railing, with stone piers at intervals. The front entrance, approached by a semi-circular flight of steps, will be flanked by open parapet walls with balustrading. The cost of site and buildings, including the fittings, will be over £50,000, and it is hoped that occupation of the buildings will be possible by the opening of the session in September, 1914.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals										
	Con-firm'd	Re-ported	Con-firm'd	Re-ported	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Out-breaks.	Slaugh-tered.
Gr. BRITAIN.													
Week ended March 8	8		8				5	5	71	141	2	35	327
Corresponding week in	1912 33 1911 13 1910 38		34 15 47		1	12	3 3 7	16 7 13	112	208	7 13 8	56 42 29	679 527 122
Total for 10 weeks, 1913	127		141				36	109	812	1762	93	337	3804
Corresponding period in	1912 262 1911 212 1910 312		291 240 379		1	12	33 45 68	76 171 198	1316	3110	129 263 252	588 349 232	7535 3896 1661

† Counties affected, animals attacked: Durham 1, London 3, Middlesex 1.  
Board of Agriculture and Fisheries, March 11, 1913.

IRELAND. Week ended March 8	...	...	...	...	...	...	...	Outbreaks	1	17	1	...
Corresponding Week in	{ 1912 ... 1911 ... 1910 ...	...	...	...	...	...	...	1	14	3	31	
		...	...	...	...	...	...	3	9	4	102	
		...	...	...	...	...	...	3	22	1	13	
Total for 10 weeks, 1912	...	...	...	...	...	...	...	66	184	36	179	
Corresponding period in	{ 1912 ... 1911 ... 1910 ...	1	1	...	...	...	...	24	181	30	245	
		3	3	...	...	...	...	25	173	30	583	
		4	6	...	...	...	...	20	213	7	228	

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, March 10, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## Highland and Agricultural Society.

A meeting of the directors of the Highland and Agricultural Society was held at 3 George IV. Bridge, Edinburgh on March 5th, Sir Archibald Buchan Hepburn, Bart., of Smeaton, in the chair.

## APPOINTMENT OF JUDGES.

Mr. Alexander Willison, manufacturer, Dalry, was appointed judge of wool; and Professor Dewar, F.R.C.V.S. judge of Horse-shoeing. It was agreed to appoint Mr. Robt. Muir, Monkton, as reserve judge of horse-shoeing in case of Professor Dewar being unable to act.

## GLASGOW VETERINARY COLLEGE.

A letter was read from the Glasgow Veterinary College asking for a further grant from the Society towards their improvement scheme.

It was agreed to grant an additional £100, a similar sum having been granted previously.

Sir Hugh Shaw Stewart, Bart., said as Chairman of the Governors of the College, he might say that they had hoped to get from the Society the same assistance as had been given in the case of the Edinburgh Veterinary College. They would, however, take what they got, and he thanked the Society on behalf of the Governors.

## Racehorse and Motor.—£350 Damages.

The Under Sheriff of Cambs. and Hunts., Mr. J. Percy Maule, of Huntingdon, and a special jury were occupied for nearly six hours at the Shirehall on Wednesday in hearing a case in which Sir Richard Charles Garton, of Haslemere, Surrey, and Mr. Richard Coombe, of Hereford Gardens, London, W., sought to recover damages from Mr. Walter P. Kirton, Conservative agent for East Cambs., for injuries caused to a racehorse named "Catiline" by defendant's motor car on Sept. 30th last. The horse was returning late at night along the Fordham Road to the training stables, after having run that day at Birmingham, and the accident occurred within a few hundred yards of the Jubilee Clock at Newmarket.

The Court was held by the Under-Sheriff under a writ from the King's Bench Division of the High Court of Justice, addressed to the High Sheriff, commanding him to cause inquiry to be made as to what damages plaintiffs were entitled to recover.

Mr. H. St. J. Raikes, barrister, and Mr. M. Falcon, barrister, instructed by Messrs. A. H. and A. Ruston, solicitors, Newmarket, appeared for the plaintiffs, and Mr. Harold Brandon, barrister, instructed by Messrs. Algernon Vandamm & Co., solicitors, Fleet Street, London, defended.

Mr. Raikes, in his opening, said the claim was one for damages for injuries to a horse named "Catiline," the property of the plaintiffs, a three-year-old. The in-

juries were inflicted on September 30th by the defendant's motor car, which was driven into him with very considerable violence. There was no need to go into any detail as regarded that, beyond saying that the result of the car running into the horse was that the horse was swung round from the road on to the path, which was about a foot high, and a bone in the leg was fractured and other damage was done. The defendant admitted that he was driving negligently, and that plaintiffs were entitled to damages, and the only question to decide was what the amount of the damages was. It would be necessary, in order that the jury might fully understand the position to consider for a moment what constitutes value in a racehorse. In the first place a great element was a horse's capacity for winning races, and quite apart from the principal races, the stakes attached to races which a horse of this capacity would have had a fair chance of winning ranged in value from £500 to £1,500, and, of course, a horse capable of winning even one of those races was of very considerable value to its owner. Another element was a horse's value for breeding purposes, which was dependent on three things. First, it must be a well-bred horse of a good running strain and pedigree; secondly, it depended upon its capacity for winning races, because when a horse had made a name the owner was entitled to charge higher fees; thirdly, if a horse went to stud and got winners the fees were increased. He only proposed to deal, with regard to the question of breeding value, with two points, how the horse was bred, and secondly, his capacity for winning races prior to the accident. "Catiline's" sire was "Cicero," a Derby winner, and the covering fees in respect of "Cicero" in the year when "Catiline" was begotten were £98. They had since been raised to £200, and he understood that the present fee was 300 guineas. His dam was "St. Lucia," who was described as a wisdom mare. She had produced several winners, brothers or half brothers of "Catiline," and one of them, now six years old, was a horse that had improved as he continued to race, and last year was successful on two occasions and ran second on two other occasions, and another, a filly, "La Souffriera," running as a two-year-old, last year won a prize valued £500. So they would see that "Catiline" had enough breed for anything, and if he were now capable of winning races he would be very valuable both for that and as a prospective sire. But as a result of the injury he had suffered, it was in the highest degree improbable that he would race again or even be put into training, and as he was thus incapable of winning races, his value as a stud horse might also be regarded as practically negligible, because no one would send mares to a horse that did not create history on the turf. As to the horse's own value, they had to arrive at the value of the horse before the accident, and its present value. The owners had already expended upon "Catiline" since he had been put into training £958. The owners would not have expended that money if they had not had reasonable expectations of recouping themselves. The estimates of the value of the horse before the accident, made by experts who had examined it, ranged from £800 to £1,000, and they put its value since the accident at from £100 to £200, or £250.

Mr. Raikes then called Harry William Sadler, of Falmouth House, Newmarket, racehorse trainer, who said he had had "Catiline" in training for his owners before the accident.

Mr. Brandon submitted that this was wholly irrelevant.

Replying to the Under-Sheriff, witness said "Catiline" was bred by the owners. Witness went on to say that, having regard to the valuable engagements the horse had remaining to be fulfilled at the time of the accident, he valued the horse in his own mind at £1,000

prior to the accident. There were four engagements remaining, and he could have been put into more.

Mr. Raikes: What do you value the horse at now? What would you give for it?—I would not give £25 for it.

Why not?—Because he has a broken leg for one thing, and he had got very stalliony.

Would it be possible to train him again?—It would be very doubtful.

The Under-Sheriff: Where is his leg broken, Mr. Sadler?—Just below the hock.

Mr. Raikes: How long would it take to get him into condition again, even assuming he was sound now?—Three months.

Do you think he would stand training for three months?—I am very doubtful about it.

Mr. Brandon: I will give you £200 for him now. What do you say to that?

The owners: We will take it.

Mr. Brandon: You agree that the "Racing Calendar" is the best test of a horse's form, is it not?—Sometimes.

This valuable horse has run in two races as a two-year-old in two £100 plates. With valuable horses you don't as a rule like to sacrifice the maiden allowance of a valuable horse on £100 plates?—That depends on the owner.

Do you say that gentlemen in the position of the plaintiffs would like to sacrifice a valuable horse in that way? Is that your experience?—I should not like to say.

It ran twice and was not placed either time?—No.

Take its three-year-old record. This valuable horse had run eight times as a three-year-old and was only placed once?—I believe so.

The very last race this horse ran in was on the day of the accident, if I am not mistaken, it ran in a £100 welter handicap at Birmingham, and didn't get a place?—He was bumped about.

In reply to the Under-Sheriff, witness said the horse had not done any strong work since the accident, but had done a certain amount of work.

Sir Charles Garton, prospective High Sheriff of Surrey, said he had been an owner of racehorses for some 20 years. Judging by the line of his other horses, he should say that in September last "Catiline" was worth from £800 to £1,000. He had been glad to accept the offer of £200 for the horse which had been made that day in Court.

Mr. Brandon: The gentleman who has bought the horse, Mr. Coleman, is a veterinary surgeon. Don't you think that throws considerable light on the subject?—He may be gambling on it.

Were you keeping this horse at Sadler's, and occupying one of his valuable boxes at Newmarket with a £25 horse?—I wanted to have him shot.

Mr. Richard Coombe said he had been a horsebreeder and owner for ten years. He would not have taken £1000 for the horse before the accident.

Mr. Raikes: Do you think he is well sold at £200 now?—Absolutely.

Mr. Edward Leach, F.R.C.V.S., veterinary surgeon to the racing stables, said that on October 2nd he examined "Catiline," and found he had a severe injury just below the hock, a bruised quarter, an injury to the tendons below the hock and an injury to the shin bone. He was very lame, due to the concussion and injury to the limb. There was a star fracture of the shin bone, the splint bone and tendons were injured and the skin over them was lacerated. On the 30th November he saw the horse in company with Mr. Livock, the veterinary who saw the horse for the defendant. The horse was still a cripple more or less. There was a bony enlargement of the hock.

Witness produced a mummified limb of a horse, and



on this indicated the positions of the various injuries. He said there was also an injury to the pastern joint. One bone moved too much on the other, and when the horse did hard work he might strain the ligaments and produce ringbone. He thought the horse was well worth 1,000 guineas before the accident. He went upon the private calendar which was much better than the horse's public performance.

Mr. Raikes: What do you think he is worth now?—He's not worth any more than it has been sold at.

The Under Sheriff: What do you value it at now?—I should buy him under £200 now.

Is there any permanent injury?—Yes, to the bone and tendon.

Mr. Brandon: Do you think Mr. Coleman bought the horse for £200 simply to oblige Sir Richard Garton or because he had got a bargain?—He doesn't seem very happy since he bought it. (Laughter).

Did you expect him to get up in Court and clap his hands?—No, but I have heard him inquiring about it since. (Laughter.)

Yes, inquiring if it's alive, because he could not understand them selling it at such a price.

In reply to further questions, witness said that the horse was tried after the accident; it cantered all right, but was lame next day. The effect of the cantering was to make it lame again.

Mr. Raikes: Can he, by any stretch of words, be described as sound now?—No, the pastern is a grave defect.

The Under Sheriff: Is the injury to the pastern attributable to the motor?—Yes, it has developed from the horse standing in an unnatural position for so long when it was in pain.

The Under Sheriff: It is an after-result?—Yes, an after-result.

Mr. Thos. Naylor Clark, veterinary surgeon, said he had been assistant to Mr. Leach for over 20 years at Newmarket. He attended "Cataline" since the accident, and he entirely agreed with Mr. Leach's evidence.

Mr. Wm. Hunting, of London, S.W., past President and Fellow of the Royal College of Veterinary Surgeons, said he examined "Cataline" in February. He found a blemish on the inside of the hock and just below it an enlargement of the bone and of the back tendon. While the animal was pulled up and walking there was a partial knuckling over of the pastern.

Mr. Raikes: Do you think it is probable that the horse could be put into training again so as to win races?—I don't know. You will have to try him. I connect the injury with the knuckling because the tendon injured is the only one attached to the pastern bone.

Mr. Thos. Jennings, of Newmarket, said he had been a trainer for over 30 years, and had trained some of the winners of the principal races. He was acquainted with the breeding of "Cataline," and had seen him run once or twice. He should value him at from £800 to £1,000 prior to the accident.

Mr. Raikes: What would you say about the value of the horse now?—I haven't seen him sufficiently since the accident to know what he is worth.

You don't feel inclined to outbid Mr. Coleman, do you?—I don't.

Mr. Thos. Leader, of Newmarket, said he had been a trainer for the last 40 years, and had trained winners of principal races, including the Derby. He could not speak very well as to the value of the horse; but on the form to which attention had been drawn by Mr. Raikes, he should value it at about £800. He saw the animal at exercise three days ago. It struck him that he was not sound. He seemed a bit irritable, and to have his attention on other things. His experience of horses that had been thrown out of training was that it was very rarely that they recovered their form.

This concluded the plaintiff's case.

Mr. Brandon began by saying: "We are the motor car. Pity the poor motor car. It is no good defending a motor case, even if it happens at twelve o'clock at night, if you collide with a racehorse. We have to pay something for the damage to this horse, and we have admitted liability, and that being so I don't think we have been too generously met by the evidence called here." Mr. Brandon went on to allude to the expert evidence called for the plaintiffs, and said he could not get that sort of evidence. Fancy Mr. Kirton going round Newmarket and asking trainers to give evidence on his behalf? For the plaintiffs, hypothetical cases had been cited as to what races the horse might have won. On the contrary he had taken a solid standard, the Racing Calendar, and that showed that the horse had been racing for two years and had not won a race, and had only once been third. It was a curious thing, he continued, that whenever there was an accident with a motor, the value of things always seemed to appreciate. If it was a cab horse that was run into by a motor 'bus, it was sure to be a most wonderful horse, and when a cabman was injured, it was always the busiest season in the year. He asked the jury to say the value of the horse had been very largely over-estimated. He pinned his faith to the Racing Calendar and the horse's performances. It had not won a race, and only once ran third, and on the very day of the accident was unplaced in a £100 plate at Birmingham, and, carrying 6st. 10lbs., was ninth in ten runners.

Mr. John Coleman, veterinary surgeon, of Epsom, said he examined the horse on February 4th at Newmarket, and found a blemish on the inside of the hock, and a thickening of the tendon. The blemish would always remain. He had him galloped, and found that he was sound in wind, and did not break down over about five furlongs, but pulled up perfectly sound and well. He then sent him to the stable to cool, and afterwards had him out to see if he was sound, and, with the exception of the blemish, found him sound except for a little knuckling over on the hind leg. From his examination he thought the horse would be able to stand further training without breaking down. He had examined the animal's form in the book, and in view of his public performances he considered that a fair value—he was a difficult horse to put a value on—was about £600 before the accident. There was no getting away from the fact that he was a nice young horse. He was prepared to back his present opinion of him by giving £200 for him.

Mr. Brandon: Do you think you have got a bargain or not?—I haven't seen him for two or three weeks, but I think so. I should not take less than £100 profit on him to-day.

Cross-examined, witness said he thought Mr. Leach and his assistants had got the horse right and made a very good job of it.

You have told the jury you intend to make £100 profit?—I may make £200 or £300.

It's a pure speculation on your part?—Yes.

Re-examined, witness agreed that the animal's form suggested that he was a horse that would not do his best on a course and did better at home.

Mr. George Harry Williams, M.R.C.V.S., Pimlico, said he purchased and attended to many of the horses used by the Royal Family. On February 1st he examined the horse. Excepting for the enlargement, the injury had disappeared. He did not think the blemish would in any way detract from his training capacity. The horse was trotted and walked round the yard, and went quite sound. He showed knuckling at first, but it seemed to go off after a time, and he pulled up quite sound and well. On the book form—he seemed to have won nothing—he could not say his value before the accident was more than £500. A fair amount to allow

for depreciation by reason of the bony enlargement was from £150 to £200. He thought Mr. Coleman had a bargain, and that the horse would stand training, and might be as good as he was before.

Mr. Brandon again addressed the jury, calling attention to the performances of the horse, and suggesting that by entering the horse for £100 plates, the owners had not formed a high opinion of it. He reviewed the performances of the animal both as a two-year-old and a three-year-old, and remarked, "Horses for courses," they say; but he seems to have had a try at every course in the kingdom, and failed, and finished absolutely stony last at York. He submitted that the plaintiffs' value was an absurd one, and that a fair price before the accident would have been £500 or £600.

Mr. Raikes, in his reply, alluded to the readiness of the owners to sell the horse. "They nearly fell over each other in trying to accept Mr. Coleman's offer," he remarked. "That speaks for itself." He submitted that plaintiffs were entitled to substantial damages, and suggested £600 or £700.

The Under Sheriff briefly addressed the jury, and remarked that, taking all the races together, it was perfectly obvious that the horse had not come up to the form expected of it. He, however, observed that had the owners not thought highly of the animal they had an alternative course—entering him in a selling race. With regard to the horse's value for stud purposes, he thought that was more or less hypothetical; it might have been valueless or it might have been a great success.

The jury retired to consider their decision, and after an absence of fifty minutes the Foreman (Mr. Saltmarsh) intimated that they found for the plaintiffs for £350 damages.

Mr. Ruston asked if that represented the depreciation in value of the horse in consequence of the accident or whether it included the expenses incurred by the vets. attending the horse.

Mr. Saltmarsh replied that the £350 only represented the difference in value of the horse before and after the accident.—*Cambridge Daily News*.

#### University of Liverpool: Proposed Veterinary Hospital.

Prof. Ernest E. Glynn, who was recently appointed to the Chair of Pathology at the University in succession to the late Sir Rubert Boyce, delivered a public inaugural lecture on Feb. 21st on the Study of Disease in Domesticated Animals. He strongly advocated the addition of a veterinary hospital to the School of Veterinary Science in Liverpool.—*The Lancet*.

#### Unique Veterinary Operation.

An operation which, should it prove successful, will probably rank as one of the most remarkable in the veterinary profession, was performed on Tuesday last by Mr. Percival Carter. It would appear that a young filly belonging to Mr. H. P. Jones had the misfortune to dislocate its neck some six weeks ago. It happened whilst the horse was jumping a fence; this it failed to clear and came down badly on its head. It appeared to be well enough bodily, but its neck was twisted to an extent that left the muzzle almost touching the shoulder. Pronounced by several experts as fit only for the slaughterer, other views prevailed. An operation was decided upon and this was duly carried out by Mr. Carter on Tuesday last. The horse was under chloroform for three hours, during which time the injured part was restored to its normal condition. District owners are naturally displaying a great interest in the outcome and are following

developments with a practical concern. At the time of writing the symptoms are favourable enough, but some time will elapse before any definite conception of the ultimate result can be expected. If it does lead to a cure Mr. Carter will have achieved a triumph.—*The West Kirby News and Advertiser*.

#### REVIEW.

GREAT LIGHT CONCENTRATING SYSTEM FOR OPERATING THEATRES WITH LEITZ-REFLECTOR. (E. Leitz, 18 Bloomsbury Square, London. W.C.)

The firm of Leitz forward us a booklet explaining a new system of light concentration they have devised for operating theatres. It is designed to remove the difficulties arising from shadows when a single arc lamp is used, and those from insufficient concentration when several are employed. The system may be briefly described by saying that, by means of a somewhat elaborate apparatus, the light from a single arc lamp is sent in six different directions to mirrors placed on the ceiling and wall of the operating theatre, and that the mirrors in turn reflect it directly on to the field of operation. The booklet contains explanations and a diagram, from which it appears that all the available light is concentrated from different directions upon an area of from 12 to 16 inches in diameter, in which the subject can be placed and moved about at will. Shadows are thus eliminated, and any undue brilliancy of light may be controlled by an iris diaphragm fitted to the apparatus. One of these systems has been in successful use for a year at the New Obstetric School at Strassburg. The apparatus seems a great advance upon ordinary methods of illumination; and its only drawback for veterinary purposes is its necessarily high price. Exclusive of resistance and installation, it costs between £60 and £70, which is more than most practitioners will be prepared to spend upon lighting an operation room. But there are some who operate extensively, and the system may be commended to the notice of these.

W. R. C.

#### The Brain of Primitive Man.

On Feb. 23th, Prof. G. Elliott Smith, in a lecture to the Royal Dublin Society on "The Brain of Primitive Man," said that in discussing the subject of the primitive characteristics of the earliest forms of the human brain, thoughts would naturally turn to the great loss which investigators of that class had suffered during the last few years by the death of the man who laid the foundations upon which future investigators would build their knowledge of this subject. He referred, of course, to Prof. Cunningham, who was for so many years the Professor of Anatomy in Trinity College, Dublin. The great difficulty in this study was to obtain material. He exhibited a number of slides showing details of the brain development of various types of the human race. After illustrating the difference between the primitive human brain and the highest simian type, he traced the development of the monkey brain from the most elementary mammalian forms. The brain developed under the stress of circumstances, which had made it necessary to use arms, and that led incidentally to the perfect erect attitude and to the adoption of speech. These things did not come first, but followed the expansion of the brain.—*B. M. J.*

New Casualty Dresser (referring to entry in register): "Porter, what does this entry mean—C<sub>2</sub>H<sub>6</sub>O?" Porter (with superior smile): "That, sir, is the Latin for beer, sir."

**The Transmission of Environmental Effects.**

At a meeting of the Royal Physical Society on February 24th, Dr. W. E. Agar brought forward facts bearing upon the transmission of environmental effects. If one of the *Cladocera*, a group of crustacea including the water-fleas, was placed under certain abnormal conditions, changes took place in its structural features, and if it were removed again to normal conditions its offspring exhibited the same peculiarities as it had acquired, and even the offspring's offspring showed them, although in a much slighter degree. The next generation, however, showed a marked reaction in the opposite direction. It was suggested that the apparent "inheritance" of the acquired character was due really to the passive transference of a toxin-like body and the later production of an antitoxin.—*B. M. J.*

**Shire Horses and Veterinary Inspection.**

Shire horses have for more than thirty years been subjected to a veterinary inspection at the London Spring Show. The first experiences of the system revealed a vast amount of unsoundness in the breed, but by persistent adherence to the inspection, an immense improvement has taken place. In this, as in some other respects, the Shire Horse Society has led the way among breed societies. The results of the inspection at the show this year are reported to have been as follows:—23 horses failed to pass, a figure which is six in excess of last year's. Five were disqualified for cataract, three for sidebones, four for roaring, two for stringhalt, two for ringbone, two for shivering, and two for unsound coronets, while one each was disqualified on account of curb, lameness, and unsound feet. Those who have attended the Shire shows with more or less regularity since their inception can recall many lively days, when horses were disqualified, for which high prices had been paid, and of which great things were expected. But, to the lasting credit of the successive Councils, be it said that they have never swerved from the stern resolve to make the breed as sound as the experience of breeders and the professional skill of veterinary surgeons could make it.—*The Scottish Farmer.*

**Contract Practice.**

It is not at all clear that contract practice, when cleared of certain outstanding and non-essential evils, is more open to objection than the acceptance of a salary. In both cases the employed person accepts a fixed sum for more or less indefinite work. If contract practice is divested of the two things which have made it a by-word in the profession in the past, namely, unsatisfactory remuneration and monopoly—that is, the denial of free choice on both sides—there is nothing more derogatory about it than there is in the acceptance of a fee for each visit or an annual salary. Some of the best work in the world has been done on contract, and it is taking a very superficial view to denounce the whole system uncritically, as is so often done.—*B. M. J.*

**ARMY VETERINARY SERVICE.**

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, March 7

SPECIAL RESERVE OF OFFICERS.

ARMY VETERINARY CORPS.

W. E. Phipps to be Lieut. (on probation). Dated March 3.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. J. Tagg to be Capt. (Dated Dec. 19, 1912).

March 11.

E. Berry to be Lieut. Dated Jan. 30.

Lieut.-Col. R. W. Raymond has been granted an extension of sick leave of absence till June 3rd, 1913.

Capt. J. O. Andrews and Capt. A. Hodgins arrived from South Africa in Transport "Soudan" on 10th. instant on completion of tour of Foreign Service, and have been posted to Woolwich.

Capt. J. A. Bosley and Lieut. W. F. L. Bright have been selected for employment with the Egyptian Army.

Officers of the Army Veterinary Corps are to be permitted to count their service with the Egyptian Army as Foreign Service.—*Daily Telegraph*, Feb. 1.

**Comments.**

The Shire men went in for veterinary examination and have come out on the right side. The Clydesdale men are still shivering on the brink (p. 587).

Mr. Noël Pillers thinks it desirable (p. 564) that one entrance fee should clear a man for all Divisions of the N.V.A. With certain slight reservations, so do we.

One objection to the N.V.A. under the old rules was that it offered little attraction—no possibility of active co-operation—to many of the younger and poorer men. The reconstruction has largely altered that.

The County Inspectors are on the move. Mr. Trevor Spencer won't let his party "rest muskets."

There are signs that some of the Divisions are likely to be divided—as to area—and reconstructed on railway lines—available centres—so as to facilitate fuller attendances.

The man who thinks his subscription is all his Division wants from him has probably taken his own measure pretty correctly.

COM. SOUTHTON.

**Personal.**

GARDNER—FERGUSON.—At Queen's Hotel, Girvan, on Feb. 25th, by the Rev. James M'Fadzean, B.D., Colmonell Parish Church, Walter Gardner, M.B.C.V.S., Colmonell, eldest son of Mr. D. M. Gardner, M.B.C.V.S., Springvale, Helensburgh, to Annie Ferguson, daughter of Gilbert Ferguson, Colmonell.

MR. DALGLISH, a member of Girvan Town Council, is at the present time in a rather curious position. As a veterinary surgeon he holds an appointment under the Council in connection with the working of the Public Health Act. He has a retaining fee from the Council of one guinea per annum for his services in his capacity as inspector under the Act, and the question has arisen as to whether he can legally sit as a member of the Council while holding what might be termed an office of profit under the jurisdiction of the Council. We understand that Mr. DalGLISH offered to give his services as inspector under the Act free, but it has been held that even giving his services free does not improve his position. To the mind unlearned in the practices of the art forensic, it does seem somewhat ludicrous to think that a man who is willing to give his services free can be, by any stretch of imagination, described as likely to hold an office of profit. The matter has, we are led to believe, been placed in the hands of those likely to diagnose the case properly, and naturally their decision is awaited with keen interest by those immediately concerned.—*Ayr Advertiser*.

## LECTURESHIP IN ABERDEEN COLLEGE.

For the vacancy in the lectureship of veterinary hygiene there were thirteen applicants, and the following short list was agreed upon by the Staff Committee: Mr. Hugh Fraser, M.R.C.V.S., temporary lecturer in veterinary hygiene, Marischal College, Aberdeen; Mr. James Peddie, F.R.C.V.S., 125 Nethergate, Dundee; Mr. D. C. Matheson, F.R.C.V.S., D.V.S.M. (Manchester), Orcadia, Goulton Road, Clapton, London; Mr. W. Brown, M.R.C.V.S., F.R.P.S., Silverbank, Banchory; Mr. A. M. Turk, M.R.C.V.S. (hons.), Swaffham.

Other candidates were:—Messrs. Alexander Levie, F.R.C.V.S., F.R.S.E., E.V.S.M., Veterinary Research Department, Midland Dairy College, Kingston, Derby; A. C. Duncan, F.R.C.V.S., Professor of Veterinary Science and Bacteriology, Royal Agricultural College, Cirencester; R. J. Anderson, F.R.C.V.S., Post-Grad-Cert. (London), Cupar, Fife; A. M. Forster, F.R.C.V.S., M.R.S.I., Red House, Clifton, nr. Ashbourne, Derbyshire; John Brown, F.R.C.V.S., Diploma of Post-Graduate Course Pathology, Bacteriology, and Meat Inspection, etc. (Royal Veterinary College, London), Invergordon; James Forbes, M.R.C.V.S., Trafalgar Square, Truro; W. S. Lornie, M.R.C.V.S., Hatton, Aberdeenshire; D. Hamilton, F.R.C.V.S., Bourtree Hill, Hamilton.

## OBITUARY

JAMES BOYD, M.R.C.V.S., Ledbury, Herefordshire.  
Graduated, Edin: April, 1863.

Mr. Boyd's death occurred at his residence on Feb. 18. Although Mr. Boyd was 77 years of age he was hale and hearty, and looked likely to live to a good old age; no one expected such sad news. He had been an active man in his day. He qualified at Gamgee's College, Edinburgh, and his diploma bears the date April 27th, 1863. Besides having a large veterinary surgeon's practice for over forty years, he had always taken great interest in politics and public business, and had served on nearly all the public bodies—Parochial Committee, Board of Guardians, School Board, and Urban Council; he held the chair of the latter for three consecutive years, and sat on the Bench of Magistrates during that period. He was a generous nonconformist, and always ready to give financial help to every cause, and he will be greatly missed. Much sympathy is felt for Mrs. Boyd, who is unwell, and for the one son and one daughter: both of whom are married. Mr. Boyd, jun., carries on the veterinary practice of his late father.—*Worcestershire Echo*.

DAVID SCOTT, V.S., Wallingfern, Brough, Yorks., died on March 7th, from cardiac valvular disease. Aged 79 years.

WHO SHOULD INSPECT DAIRIES & COWSHEDS?  
Sir,

I notice in your issue of this date that Mr. T. Chambers at a meeting of the Midland Counties Veterinary Medical Association held in Birmingham, Feb. 14th, said: "A veterinary surgeon and a practical sanitary inspector were the men to inspect dairies and cowsheds." Could Mr. Chambers explain his change of front?

When he, as a member of the Dudley Town Council and Chairman of the Sanitary Committee, proposed the office of Inspector of dairies and cowsheds be taken from me (who had been the veterinary inspector for the Corporation for 40 years) and put on to the duties of the sanitary inspector. I may add that he succeeded in getting this resolution passed.

Apologising for troubling you, I am, sir, yours faithfully,  
ABRAHAM GREEN, M.R.C.V.S.

Dudley. March 8.

NORTHAMPTON COUNTY INSPECTORS AND THE  
TUBERCULOSIS ORDER OF 1913.

Sir,

Will you kindly allow me the hospitality of your columns in reply to the invitation extended to veterinary inspectors by their confrères of the Northants C.O. at their meeting reported in last week's *Record*. After reading this report I wrote Mr. Trevor Spencer informing of my willingness to co-operate with the Northants inspectors, and told him of an idea that had occurred to me while reading the Tuberculosis Order a fortnight or so ago.

The idea was this: In view of the imminence of this new Order of the Board of Agriculture I thought the present time was opportune for the formation of a society or association of veterinary inspectors, having for its object the consideration and discussion of all matters connected with their duties and the safeguarding of their interests.

Mr. Spencer and several other inspectors with whom I have been in communication are in hearty sympathy with the idea, in fact Mr. Spencer writes me that in forwarding the report to *The Veterinary Record* it was the intention of the Northampton meeting to ventilate the subject, and if sufficient support and interest could be aroused in other districts to call a meeting of veterinary inspectors for the purpose of forming a society of veterinary inspectors. If such a society is formed it might be modelled upon the lines of the Association of Veterinary Officers of Health, and could be affiliated with the National. If thought expedient it could be divided into sections, representing suitable areas, with convenient centres for meetings. I feel convinced such a society would serve a very useful purpose. Not only would the discussion of knotty problems which arise in connection with our duties be of great benefit, but a society would give us a status and a recognition which individually we cannot now aspire to, moreover the matured considered opinion of such a body would be of great assistance to our councils. Mr. Spencer has kindly undertaken the preliminary work, and will shortly call a meeting of inspectors in London to consider the project and decide if it is advisable to bring the suggested scheme to a definite issue. I venture to hope that, as their interests are so deeply involved, veterinary inspectors will make a special effort to attend the meeting Mr. Spencer is calling, and if it is decided to launch such a society to give it their cordial support.—Yours faithfully,

GEO. EDWARD KING.

The Vineyard, Abingdon, March 11.

## SCOTTISH METROPOLITAN V.M.S.

Dear Sir,

When I sent you the report of our last meeting I omitted to insert a list of members present. These were:—

Dr. O. C. Bradley, Messrs. A. Baird, John Riddoch, Principal J. R. U. Dewar, J. L. Cormack, Prof. A. Gofton, Edinburgh; T. P. Young, Leith; J. Cameron, senr., Berwick-on-Tweed; J. Storie, East Linton; T. M. Inglis, Forfar; J. Aitken, jun., Dalkeith; J. McFarlane, Doune; Visitors: Messrs. R. G. Anderson, Cupar; G. A. Thompson, Edinburgh.—Yours truly,

JAMES HENDERSON, Hon. Sec.

Edinburgh, March 11.

## BOOK RECEIVED.

A SYSTEM OF VETERINARY MEDICINE, by various writers. Edited by E. WALLIS HOARE, F.R.C.V.S., Lecturer in Veterinary Hygiene, University College, Cork; late Examiner in Anatomy, Royal College of Veterinary Surgeons; late External Examiner in Veterinary Toxicology, Jurisprudence and Sanitary Law, University of Liverpool; Author of "Veterinary Therapeutics and Pharmacology." Large 8vo. pp. xvi. + 1328, no advertisements, cloth lettered, Vol. I. 21/- net. Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden.

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.

# THE VETERINARY RECORD

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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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VOL. XXV.

## THE IRISH VETERINARY COLLEGE.

The Royal Veterinary College, Dublin, has been taken over by the Agricultural Department, and is now a State institution. All parties seem satisfied with the change. The Royal Dublin Society, the Governors of the College, the Staff, and the students give their unanimous approval. The advantages to the school are self-evident; it will rise above all financial anxieties, the staff will be more adequately remunerated, material efficiency will be more perfect, and probably an improved status for graduates and students will result.

The value of veterinary science is becoming more widely recognised every day, and the recent outbreak of Foot-and-mouth Disease has drawn attention to the loss which follows the spread of any animal plague. Private effort has done much during the last half-century, but systematic research under State auspices is likely in the near future to do vastly more.

We may congratulate the Principal of the School on the rapid development which has taken place during his comparatively short leadership, and express a hope that the new position will not alter the relation of the Irish School to the Body Corporate.

## THE LIVERPOOL VETERINARY SCHOOL.

The Professor of Pathology at the Liverpool University in a recent lecture advocated the addition of an Infirmary to the Veterinary School. A well-filled infirmary would undoubtedly be useful to the students and of value to pathologists wanting material, but its benefit to everyone would be in proportion to the number of patients it contained. It seems to us doubtful whether a veterinary infirmary attached to the University would for many years reach a position which would afford as much useful observation and experience as is now given by the arrangements with private practitioners and the Corporation.

At least three Liverpool practitioners afford the students access to their infirmaries and give clinical instruction. One could hardly expect this chivalrous system to continue if the University established a rival infirmary, and the result of its discontinuance would be that the University veterinary infirmary would long remain an empty building.

Of course the munificence of Liverpool is great, and public subscriptions and private patronage might make the proposed infirmary a success, but its success must certainly be at the expense of the private practitioner unless the practice were limited to the owners of animals who could not afford to pay. We are not quite sure whether the proposed infirmary would not be a breach of faith with the Liverpool practitioners.

## THE "CRUELTY" ACT.

There have been some references lately to the appointment of inspectors under this Act, and although

we agree with Mr. Garnett, it must be remembered that the Act is not a general one applying to all animals. It is simply the new Vivisection Act, and the duties are the inspection of laboratories where experiments are carried out. In the interests of the animals we certainly think one out of six inspectors might well have been a veterinary surgeon.

## CLINICAL NOTES.

By SAM CHAMBERS, M.R.C.V.S., Huddersfield.

### RUPTURE OF DIAPHRAGM.

On Nov. 11 I was requested to attend harness mare which left the farm in the milk cart at 9 a.m. not in her usual form. When she had gone three miles she showed signs of colic, and received medicine, which gave no relief. I saw her about 3.30 p.m. and found her in pain, with pulse 60 and quickened breathing. I gave colic medicine and good dose of Chloral hydrate; called again about 8.30, and found great change for the worse.

On examining per rectum found no distension, in fact was rather struck with room: there was no resistance to introduction of arm full length. I began to wonder what I had to deal with, as it threatened to be fatal—and quickly, too. After watching my patient a while, and from quite a yard away I heard liquid sounds as she lay on her side, and was led to examine the chest, and question the owner as to her behaviour during preceding few days; he stated that she had been in perfect health. The sound was at each beat of the heart, so I could offer no other opinion but that the diaphragm had given way and the bowels were in the chest. The post-mortem confirmed such to be case.

### RUPTURED ARTERY IN A NEWLY CALVED HEIFER.

On Nov. 20th I received urgent request to see a heifer, which had been calved little more than a week, and had lost large quantity of blood per vaginam, which left her just alive. I pushed towels soaked in salt and water into vaginal passage, to be removed and resoaked from time to time, and allowed plenty salt water to drink, and much to my surprise she made rapid progress, and being in the district on Nov. 30th I was quite pleased with her general condition: she had not bled for 10 days. The following morning I received a message saying she had bled to death, and to send the knacker.

On opening up the passage the ruptured artery presented a nodular projection midway between vagina and os uteri. I had ventured an opinion at the commencement that "bleeding may again

take place when the loss of blood has been made up," and that the artery had received serious injury in giving birth to calf, with consequent degeneration of the walls.

#### TOXÆMIA ?

We have had several cases similar to the following quickly put right by udder treatment. On Feb. 15 a cow in full milk, calved about two months, was found in the morning unable to rise. We were summoned urgently, to find her with legs extended, head on the ground, jaws held, grinding teeth, and had a fit which looked like finishing her off, the eyes being retracted and breathing almost arrested. The udder was unlike that of a cow in full milk, quite pale and flaccid, and not a gill of milk where six or seven quarts was the usual. After inquiring about the feed, I concluded that probably the toxin was being generated in the udder, and proceeded to inflate with filtered air—not too full, and succeeded in getting down one ounce of chloral hydrate. After this she improved like any ordinary milk fever case.

As to the exciting cause, one of our clients is strongly of opinion that it is closely connected with the period of œstrum, which is certainly worth one's careful observation.

#### POISONING IN ANIMALS.

By W. R. DAVIS, M.R.C.V.S., Enfield.

I have for a long time held the opinion that many cases of vegetable poisoning occur in our patients, which are not diagnosed, especially among cattle. At pasture, when grass is scanty, animals will browse on herbage that they would otherwise avoid, and again, when they are housed, hay or straw may contain noxious plants.

According to Frohner, the instinctive faculty of herbivora to distinguish poisonous from non-poisonous plants appears to be diminished through stall feeding and increased domestication.

In cases where the course of the disease is sudden and fatal, and especially if several animals are affected at the same time, poisoning may be suspected; but in isolated cases, and where the malady is of a mild or chronic character, it may be, and often is due to ingestion of poison and yet the illness may be attributed to cold, indigestion, constipation, etc.

A very large number of plants and their parasitic fungi produce, after continued feeding to animals, disturbance of the central nervous system manifesting itself in unsteady gait, weakness behind, difficulty in rising, and inability to rise.

Common bryony (*Bryonia dioica*) is known to cause laminitis in horses.

Dr. Theiler has demonstrated by feeding experiments that "stiffziekte," a disease of South African cattle, the symptoms of which are essentially those of laminitis, is due to feeding on a leguminous plant (*Crotalaria burkeana*).

In America in 1884 an outbreak of disease among

cattle was very prevalent, spreading over several States. It was at first stated to be foot-and-mouth disease, but was afterwards proved to be due to Ergot poisoning. Many other fungi—rust on clover for instance, produce symptoms closely resembling those of foot-and-mouth. I have repeatedly seen this among lambs, and I observe that Wallis Hoare, in his new system of veterinary medicine—just to hand—in describing the differential diagnosis of foot-and-mouth disease, does not allude to them.

Ragwort (*Senecio Jacobæus*), a plant very commonly met with on the holdings of slovenly farmers in this country, gives rise, according to Professor Gilruth, to cirrhosis of the liver in horses and cattle, and his statement has been confirmed by feeding experiments on calves.

The effect of continuous feeding of mutter peas (*Lathyrus sativus*, and *Lathyrus cicer*) in causing roaring and subsequently spinal paralysis and death in horses is well known.

Several of the spurges are known to stop milk production in cows, and I suspect that there are other plants with a like action.

Quite recently I was called to see two Jersey cows. They were in full profit, one was giving twenty quarts of milk per day. They were all right when turned into a field at eleven o'clock in the morning. At four in the afternoon they were brought home and gave much less milk than usual, and refused their food. Next morning neither of these cows gave a drop of milk. They were constipated, and apparently were suffering from indigestion. After the exhibition of an oily aperient and a few stimulant drinks, both cows recovered. I feel quite convinced that their illness was due to something they had picked up in the field, though I have not had an opportunity of going over the pasture.

Last August I reported in *The Record* the poisoning of a number of young cattle and sheep with rhododendron, the symptoms being those of inebriety.

I saw last year a cow die from poisoning by Box, *Buxus sempervirens*, the symptoms exhibited were colic, trembling, unconsciousness, paralysis and convulsions. One night last October I was called to a cow which the owner, a large dairy farmer, said had gone wrong in her head. I found the animal in a loose box round which she staggered, and tumbled in an alarming manner. She presented a good many of the symptoms of milk fever, and if she had been a recently calved cow I suppose that I should have put her illness down to that cause. Temperature, pulse, and respirations were fairly normal, and the extremities warm. The cow had eaten a bran mash just before my arrival, and she had still a desire for food which, however, I ordered to be withheld. I noticed one curious symptom. If one spoke loudly, or if one approached the cow's head, she started back, apparently in terror. At times the animal appeared to be asleep, and again she would give a sudden start and become excited. I gave an aperient, and told the attendants to go to bed and leave the cow at rest. On visiting the farm next morning I found my patient perfectly recovered. I now examined the hay, and was told that it had

been cut from a marsh and contained a lot of rough stuff. The bale which had furnished this cow's afternoon meal was mainly composed of *Equisetum palustre*, horse tail, a plant well known to produce the symptoms shown by the cow.

Apart from vegetable poisonings I have no doubt that mineral poisoning in our animals is frequently overlooked.

Last January while attending a mare at a farm the proprietor asked me to look at a favourite spaniel bitch. She had three pups a fortnight old, and although she appeared to be in her usual health on the previous day, she was now dull, refused food, and had little or no milk for the pups. There was nothing to suggest mineral poisoning—pain, vomiting, salivation, diarrhoea, were absent. I noticed that the buccal membrane was very pale, and had a slightly yellowish tinge. The bitch died two days afterwards, and as it turned out, from phosphorous poisoning. Phosphor paste had been put down for rats, the bitch had rooted up some of the bait, and it was found in her kennel.

#### THE THERAPEUTICS OF THE HOSE-PIPE.

In or about July, 1903, a very brief and crude article from my pen appeared in *The Veterinary Record*, entitled "The bacterial aspect of hydrotherapy." Therein it was suggested that in part at least, the beneficial results of cold irrigation for open wounds might be attributed to the inhibitive effect of the low temperature upon bacterial growth and multiplication.

Later in the same year I read, and attempted to defend, at a meeting of the Edinburgh Veterinary Medical Association, a thesis upon the same subject. The article referred to passed, naturally enough, without comment; the thesis was vigorously combated.

After ten years of varied surgical experience my own faith in the theory has become modified, not because of the results obtained by a consistent practice of cold irrigation, but because of my increased recognition of the part played by mechanical influences.

The results have been excellent. The hose-pipe as a means in equine surgery has attained to a position, in military veterinary hospitals, second to none. With a sufficient water supply, a hose-pipe or pipes, a few simple instruments and some Tincture of iodine, one can confidently undertake the treatment of 90 per cent. of surgical injuries—exclusive of foot and eye lesions.

It is not intended to suggest that the writer has been responsible for the introduction of cold irrigation into the service. Other people have done this, my remarks are merely coincidental.

The means by which cold irrigation exerts its good effects would appear to be as follows:—

1. The constricting effect of cold water upon the tissues, presenting an obstacle to the penetration by bacteria.

2. The depressant effect of cold upon bacterial growth and multiplication.

3. The mechanical washing away of bacteria and their toxins.

4. The restraining effect of cold upon excessive granulation.

One of the opposition arguments, upon which greatest stress was laid in the debate on the above mentioned thesis, was that academic objection to cold applications—the depression of local vitality and consequent retarding of the regenerative processes.

However great a part this may play in human surgery, it hardly applies to injuries of the horse. The tendency in this animal is for granulation tissue to form far in excess of the immediate needs of repair. With the cold irrigation treatment, granulation is controlled, and the scar becomes almost imperceptible in the majority of cases. With the older treatment of warm applications and the necessity for caustics later, the difficulty of efficient control of the latter became evident in the large and disfiguring scars which frequently remained. This observation is well demonstrated in South African country-bred horses, many of whom carry large blemishes to their graves, the result of early barbed wire injuries and subsequent treatment with quick lime.

The points to be observed with the cold-irrigation treatment are as follows:—

1. There must be free drainage for wound discharges. To irrigate a deep wound without an adequate surface opening or dependent orifice is frequently to court disaster. Healing occurs rapidly on the surface, while abscess formation proceeds in the depths.

2. In very cold weather irrigation should not be too long continued at one time.

3. Too strong a stream of water should not be used, as it tends to wash away the delicate surface granulation-tissue and thus retard healing.

4. Sutured wounds should not be irrigated, lest thereby the stitches are softened, and may tear away.

The hose-pipe with a gentle stream suffices for the majority of cases, but when an animal is too severely injured to be moved from his box, or where water is not "laid on," the old-fashioned but effective method of the overhead paraffin tin or other receptacle filled with water, through a small hole in the bottom of which water trickles down, a tape or piece of string may be successfully adopted. This plan has been used with great success in the Bloemfontein Veterinary Hospital, for the large wounds following removal of pieces of bone necessitated by compound fracture of the ilium.

The advantages that can be claimed for the cold irrigation treatment are numerous and indisputable.

Always provided that the treatment is commenced early, it may be stated that cellulitis seldom or never occurs. Healing is more rapid than with any other known form of open-wound treatment.

The technique is simplicity itself. The necessity for sponges, the so-called aseptic pail, and to a large extent surgical pledgets, is dispensed with, thus



obviating that ever-present danger, the carrying of wound infection by careless dressers.

The treatment may be used almost universally for any kind of open wound. Fistulous withers, with free provision for drainage, frequently heal with miraculous rapidity.

It would appear feasible that large galvanised iron or canvas tanks, with a device for being raised a sufficient height from the ground to allow of irrigation by gravity, might form part of the equipment of military veterinary hospitals, on the lines of communication of an Army. In European countries there would usually be a sufficient water supply.

With reference to the duration of the irrigation, each day it may be varied widely, according to the severity of the case. For very simple wounds ten minutes twice daily suffice. For serious lesions two hours a day is not too long. When the stream is very tiny, as in the use of the above-mentioned irrigation apparatus, it may be continued day and night with good results. After irrigation the wound is dried and dressed with tincture of iodine and protected or not as seems advisable.

These remarks on technique have only been appended for the information of those who have not adopted the irrigation method.

Looking back on the course of one's academic instruction in surgical principles, it has always appeared strange that no great stress was laid upon the essential peculiarities of equine physiology and habits that make it so necessary to depart widely in many cases from methods of human surgery.

One's notes or text-books reveal no particular allusion to the advantages of cold applications in surgery of the horse. The use of dressings, etc., is left entirely to the discretion of the young veterinary surgeon, save that there is elaborate description of technique based upon human surgical methods. The anatomical peculiarities of the limbs of the horse alone make it necessary to devise peculiar methods of treatment.

Where in human anatomy are found those large areas of tissue without muscle, and abounding in extensive bursæ, such as obtain below the knee and hock of the horse. His exceedingly septic surroundings make it practically impossible to apply any sort of dressing or bandage that will retain the wound in even a moderately germ-free condition. The tension of the skin of the limbs renders suturing almost hopelessly ineffective. To thoroughly cleanse the wound free from bacteria and toxins twice daily by irrigation, and to so constrict the tissues by cold that they will be more resistant to the entrance and penetration of fresh micro-organisms, are all one can do. By the use of warm fomentations, on the contrary, the tissues are softened and the penetration of fresh bacteria is made easy.

The human surgeon can use any form of fomentation he wishes, as by mechanical facilities for dressing, instructions to his patient, and comparatively aseptic surroundings, re-infection is rendered almost impossible.

WAKEFIELD RAINY, Capt. A.V.C.  
Bloemfontein, S.A.

## DRAUGHT OXEN IN GLOUCESTERSHIRE.

Some weeks ago I noticed in the *Record* a note regarding working oxen from which it appeared that they were getting scarce in this country, but there are still a few farms in this district on which they are successfully used, and thinking they might be of interest to your readers, I am enclosing three photographs showing them at work, and well illustrating the gear used, etc. Also I may say that if any of your readers are suffering from "that tired feeling," or any lack of interest in life, let them come along and try doctoring a genuine working ox! They've horns and feet all over, and lissome when they choose; and "strong as an ox" is a very true saying.

J. BAXTER.

## ABSTRACTS FROM FOREIGN JOURNALS.

### PETROL IN THE TREATMENT OF EQUINE WOUNDS.

Lesbre and Velu call attention (*Revue générale de Méd. Vet.*) to the advantages of petrol as an antiseptic in equine practice.

It is simple to apply, rapid in action, and economical in results. One of its recommendations is that it can be obtained everywhere.

Commercial petrol is an antiseptic, and at the same time has a remarkable cicatrising action upon wounds in the horse. Its application is neither irritating nor painful for either old or recent wounds; and it rapidly dries up suppuration.

It causes the formation of scabs, which are yellowish, not abundant, pellucid, and easily detachable. They are sufficiently adherent, however, to form a protective layer against contamination from the surroundings. From the first application of petrol, the wounds, even if indolent, infractious, or ulcerous, become regular and develop a covering of fine fleshy granulations, while the peripheral epidermization proceeds rapidly.

To employ petrol, it is sufficient to lightly touch the wound—very lightly at its central part—with a fine plug of cotton wool soaked in it. An infinitesimal quantity of petrol suffices. The petrol should not be allowed to flow on to the healthy parts of the skin, as they may cause an oedematous irritation which is sometimes followed by loss of hair.

Fistulous sinuses may also be treated with success by petrol. A few petrolated dressings have sometimes brought about profound modifications and have stimulated cicatrization in wounds which had resisted the ordinary methods of treatment.—(*Annales de Méd. Vet.*)

### OPERATION FOR A CŒNURUS CYST.

Duetsch, a district veterinary surgeon of Hengersberg, reports a case of a Simmenthal cow, three years old, suffering from "turning sickness." As a result of percussion, Duetsch suspected that the cyst was situated in the left cerebral hemisphere;





DRAUGHT OXEN IN GLOUCESTERSHIRE.

*Illustrating note by Mr. J. R. Baxter, M.R.C.V.S., Lechlade, Gloucestershire.*



and accordingly he trephined upon the left side of the skull.

After trepanning, the brain protruded through the opening, suggesting the close proximity of the cyst. Duetsch, however, could not find the cyst with his finger. As he still believed that it was situated upon the left side, he explored the whole cranial cavity with his well disinfected finger; but the result was negative. He then trephined upon the right side, and was there able to remove a *cœnurus* cyst, the contents of which amounted to 250 grammes (= rather over 3viij.).

Despite the mechanical interference with the left cerebral cavity with the finger, the cow rose without help four hours after the operation, and could be brought into the stall. The wounds were treated with moist bandages and disinfectants, and healed by first intention within eight days. The cow showed a normal appetite from the first day after the operation; but abnormal movements remained for another six weeks. These, however, differed in character from those observed before operation; instead of moving sideways, the cow held her head extended straight forwards, and ran against obstacles in her path.

These symptoms, however, gradually subsided; and three months after the operation the animal was quite healthy and could again be used for draught work, as she had been formerly.—(*Münchener Tier. Woch.*)

#### MICROSPOROSIS IN THE DOG AND CAT.— TRANSMISSION FROM THE DOG TO MAN.

Hebrant and Antoine record the case of a long-haired dog, about five years old, which was brought to them for examination. The animal was in good general condition, but showed, upon the flanks and upon the left thigh, five rounded or oval patches of about two to three centimetres (= 4.5th to 1 1.5th inch) in diameter, where the hair was shorter than normal, the stems of the hairs having been broken and partially removed.

In these places the short hairs were dull and greyish, and were lying in the same direction. Beneath them the epidermis was covered with grey dry scales, forming a very light foliated crust. On plucking out some of these hairs it was found that each of them was enveloped, from its base up to a few millimeters of its height, by a whitish sheath from which the point of the hair seemed to emerge.

Under the microscope, it was seen that these hairs were deprived of roots, that they had been ruptured by the force used in withdrawing them, and that the sheath which enveloped them at their base was formed solely of spores. The spores were two to three microns in size, uniform, heaped together, and slightly deformed by pressure; they formed a mosaic, without showing any tendency to grouping in linear series or chaplets in their arrangement. Mycelial filaments were not seen in this peripilar sheath, but were found in the medulla of the hair, and could only be demonstrated after disassociation of the hair in caustic potash.

The case was thus clearly one of a dermatosis caused by a microsporion, and, from the clinical

point of view, it had only a very remote resemblance to *tinea tonsurans* or to *favus*. There were neither the yellow sulphur-coloured cups of *favus*, nor the rather thick crusts upon bare humid surfaces of *tonsurans*.

The owner was a gentleman about twenty-five years old, and had only brought the dog for examination because he himself had developed a skin lesion. This was situated in the beard, on the left side of the face, and took the form of a large scaly patch bounded by a fine reddish line, reaching down to the chin, where the short broken hairs were united by whitish pellicles. In short, the lesions presented by the man were identical with those existing upon the dog, both from the clinical and microscopical point of view. The man had consulted a doctor who, without giving a positive opinion upon the dermatosis, had suggested that it might be contagious. The affection of the dog had existed for a month, and it was subsequent to its development that the owner had noticed a little skin disease upon his own face, which, despite ordinary cleanliness and painting with glycerine, had augmented. He thought that he had become infected by caressing the dog. This was clearly the fact, and the case was therefore one of ringworm of the hairy parts, of animal origin. The authors record the case with the remark that it seems to them to have the value of an experimental demonstration.

In 1906, the authors saw a cat presenting the same cutaneous lesions as did this dog. Microscopical examination of the scales showed them to be wholly made up of small spores arranged in mosaics. In this case no transmission to human beings was observed.

Canine microsporosis appears to be rare in and around Brussels.—(*Annales de Méd. Vét.*)

W. R. C.

#### NORFOLK VETERINARY INSPECTORS' ASSOCIATION.

A meeting of the Veterinary Inspectors of Norfolk under the Contagious Diseases of Animals Act was called on Tuesday, February 11th, at the Bell Hotel, Norwich, "to consider the advisability of forming an Association with a view to co-ordination of action in dealing with the Orders of the Board of Agriculture, and for the consideration of Inspectorship fees. The following gentlemen were present: Messrs. Low, Shipley, Margaron, Blomfield, MacIntyre, Holl, Bray, Barcham, Rattee, Griffiths, Auger, Taylor, Wake, Buckingham, and Waters.

Letters agreeing were received from Messrs. Bower, Hammond, and Baker, who were unable to attend.

Mr. H. V. Low, of Norwich, was voted to the chair, and W. Waters, of Blofield, was elected Hon. Secretary to the proposed Association.

Mr. SHIPLEY pointed out the great need for some Society being formed so as to safeguard the interests of the Veterinary Inspectors, especially after the way they had been treated in connection with the inspection of Irish cattle during the previous months.

It was agreed unanimously to form a society of Norfolk Veterinary Inspectors, and the following resolutions were then carried:—

1. It is the opinion of the Veterinary Inspectors of Norfolk that an Association should be formed as early as possible with the hope shortly of amalgamating with similar societies in the adjoining counties.

2. That only members of R.C.V.S. may be members.

3. That the annual subscription of 2/6 entitles membership, with an undertaking that a further instalment not exceeding 10/- per annum may be levied.

4. That the following Executive Committee of four members be appointed: Messrs. Shipley, Low, Barcham, and Holl; and that the President of the Eastern Counties Veterinary Medical Association be asked to act as chairman; the President for the current year being Mr. F. B. O. Taylor, of Weston Longueville.

5. That the fees laid down as a basis by the Council of the National Veterinary Association be adopted by this Society.

[These fees were discussed and altered provisionally in some cases, and were left to the Committee to discuss further before submitting to the County Council.]

6. That it be left to the Committee, with a recommendation from the Society, to approach the County Council of Norfolk by petition or deputation, and perhaps the other councils with a view to a revision of fees.

7. That the Committee recommend to these councils that only members of the R.C.V.S. be appointed inspectors.

8. That this Society feels that a more intimate co-operation between the Inspectors of the Council and the Executive Committee would lead to less friction, and that the opinion of this Committee should be asked on any question of importance.

Finally it should be pointed out that the great responsibility which accrues to the Inspector is apparently not recognised by the County Council.

A meeting of the Executive Committee of the Association was held on Saturday, February 22nd, at the Bell Hotel, Norwich, there being present: Messrs. Taylor, Shipley, Low, Holl, Barcham, and Waters.

It was proposed by Mr. Shipley, and seconded by Mr. Barcham, that the County Council be approached by petition, and if that be unsuccessful, by deputation.

The Committee then drafted a form of petition, taking as a basis, one kindly prepared for the Meeting by Mr. Shipley.

It was decided that this should be typed, and when ready, should be sent to each Inspector to sign before sending it to the Executive Committee of the Diseases of Animals Committee of the Norfolk County Council, and that the petition be got ready as early as possible.

The fees finally agreed upon by the Committee are as follows:—

1. That in all cases where microscopical investigation is necessary, such as the first inspection of reported cases of anthrax, parasitic mange, and sheep scab, a fee of £1 1s. should be allowed.

2. That the fee for all ordinary visits be 10/6.

3. That the fee for one or more sales in the same parish on the same day be £1 1s., provided the inspection takes less than four hours; if over four hours the fee should be £2 2s.

4. That for every necessary post-mortem duly authorised, the fee of £1 1s. should be allowed.

5. That for applying the mallein or tuberculin test (a) where any number of animals up to eight in any one stable or holding are tested, a fee of £2 2s. should be allowed.

(b) For each animal beyond eight and up to twenty an additional sum of 5/- to be allowed, the total amount of fees in no case to exceed £5 5s.

*Note.*—The cost of mallein and tuberculin used in applying the test to be refunded, provided proper vouchers for payments are produced.

6. That in all cases the allowance for travelling expenses should be sixpence per mile each way, and that the cost of necessary telegrams and postages should be allowed.

#### THE CENTRAL VETERINARY SOCIETY.

A General Meeting was held at 10, Red Lion Square, W.C., on Thursday, March 6th, Mr. J. W. McIntosh, President, in the Chair.

The following Fellows signed the attendance book: Messrs. F. Macdonald, R. Bennett, H. K. Roberts, G. Gordon, R. A. Philp, E. Lionel Stroud, R. Eaglesham, L. Auchterlonie, W. Perryman, G. H. Livesey, W. D. Halfhead, J. B. Buxton, Wm. Hunting, Prof. J. Macqueen, F. O. Parsons, R. J. Foreman, D. H. Wood, H. D. Jones, R. F. Wall, S. H. Slocock, E. A. Batt, W. L. Harrison, W. Willis, F. J. Taylor, H. King, F. W. Willett, and Hugh A. MacCormack, Hon. Sec. Visitor: Mr. B. A. McGuire.

On the motion of Mr. Foreman, seconded by Mr. Stroud, the Minutes of the last meeting were taken as read and confirmed.

The HON. SEC. announced that telegrams had been received from Prof. Wooldridge and Mr. H. Gray regretting their inability to attend the meeting.

The PRESIDENT said since the last meeting, death had removed from amongst them a valued and respected Fellow of the Association, namely, Mr. Arthur Rogerson. A gentleman of quiet and unassuming manner, his high qualifications of head together with those of his heart, had won for Mr. Rogerson the respect and admiration of a large circle of friends both inside and outside the profession, and in no place was that respect and admiration greater than amongst the Fellows of the Association. Mr. Rogerson had been a Fellow of the Society for a great number of years, was at one time President and Vice-president, and at the time of his death was a Member of Council. He begged to move that an expression of regret at the loss which the Society had sustained should be recorded in the Minutes, and the Fellows' sense of the long and valued services which Mr. Rogerson had rendered to the Association, and that an excerpt of the motion be sent to the bereaved family.

(The motion was carried by all the Fellows standing.)

#### CORRESPONDENCE.

The HON. SEC. read the following letter and proposed scale of fees from the National Veterinary Association, Southern Branch:—

#### NATIONAL VETERINARY ASSOCIATION (Southern Branch).

Dover, January, 1913.

Dear Sir,

In recommending the accompanying Scale of Fees the Council of the National Veterinary Association have requested me to point out that the fees are to be considered a fair and reasonable basis for negotiations with County Councils and other Local Authorities, under the Contagious Diseases (Animals) Acts, where, and when such may be locally considered advisable. They fully recognise that under some circumstances and in some districts modification must necessarily arise, they hope however as far as is practicable the Scale will be adhered to in the attempt to bring about a better and more uniform remuneration to Veterinary Inspectors generally.

THEO. C. TOOPE, M.R.C.V.S.,  
Hon. Sec. Southern Branch, N.V.A.

# FEES AND ALLOWANCES PAYABLE TO VETERINARY INSPECTORS.

*Scale of Fees recommended by Council of the Association.*

<i>Anthrax.</i>	£ s. d.
For Visit and Inspection of single animal	10 6
Microscopic Exam., if necessary, each animal	10 6
Inspection of contact animals	10 6

## Attendances.

Each ordinary visit	...	10 6
An attendance rendered necessary by any circumstance which the Committee or Sub-Committee may, upon the Report of the Inspector, consider sufficient, a sum not exceeding	...	1 1 0
An attendance at a meeting of Divisional Sub-Committee	...	10 6

## Attendance at Markets, Fairs, Public Sales, etc.

Half-day, i.e., not exceeding four hours	1 1 0
Exceeding four hours	2 2 0

## Certificates.

For every set of Certificates, Licenses, etc., given pursuant to an Order of the Board of Agriculture, or of the County Local Authority	2 6
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## Glanders or Farcy, and Tuberculosis.

For applying the Mallein or Tuberculin Test—	
(a) Where any number of animals up to 8 in any one stable or holding are treated	3 3 0
(b) For each animal beyond 8 an additional	5 0
[Note.—The cost of Mallein and Tuberculin used in applying the test to be repaid provided proper vouchers for payment are produced].	
For an attendance to value a horse or horses 7/6 per horse up to a maximum of	3 3 0

## Mange in Horses.

Inspection of single horse	...	10 6
Inspection of contract animals	...	10 6
Microscopical Examination, as in Anthrax	...	10 6

## Post-mortem Examination.

For every P.M. examination duly authorised	1 1 0
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## Microscopical Examination.

In any other disease not provided for	...	10 6
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## Sheep Scab.

For visits made for inspection and examination of sheep, also for re-examination. Flocks of 250 and under	...	1 1 0
For each additional 250 or part thereof	...	1 1 0
Microscopical Exam. where necessary—extra	...	10 6

## Travelling Allowances.

By railway, 2nd class when available, if not 1st.	
Cab-hire (when necessary) from railway station	
per mile, one way ... ..	1 6
plus out-of-pocket expenses, for waiting, etc.	
Otherwise than by railway, per mile, one way	1 0

## Telegrams and Postage.

The cost of necessary telegrams and postages to be allowed

Any further information, copies, etc., may be had from  
THEO. C. TOOF, M.R.C.V.S., Hon. Sec. Southern  
Branch N.V.A., 23 High Street, Dover.  
January 8th.

Mr. LIVESY proposed that the matter be referred to the Council for consideration and report to the next meeting. That meant, he said, that the Council could go into the details and make a report, drawing the attention of the members to those points which they thought required the consideration of the whole Society.

A good deal of time and useless discussion at the general meeting would thus be saved.

Mr. FOREMAN seconded the resolution, which was carried.

## SPECIMENS.

Mr. BUXTON exhibited a specimen of a fractured femur. The subject was an old mare of about fifteen or sixteen years of age. She was found down in her box one morning, and on post-mortem it was discovered that the femur was fractured in the manner shown.

II. The liver of a cat which was transfixed by an ordinary darning needle. It would be noticed that part of the stomach wall was fixed to the liver by means of the needle. Apparently the cat was perfectly well, and the condition was discovered simply by accident. The animal was used for physiological experiment, and on post-mortem the condition exhibited was found. Obviously the needle had been present in the body for a long time. One peculiarity about the case was that there had been no abscesses formed of any sort.

III. A case of pyelo-nephritis from a guinea pig. An extraordinary fact was the huge size of the abscess, and it would also be noticed that the left ovary was enormously enlarged and full of pus.

Mr. LIVESY desired to report the case of a silver tabby cat which was in perfect condition up to the mid-summer of last year. Towards the end of the year it developed a troublesome cough which gradually got well of itself, but it was replaced by vomiting occasionally after food, particularly in the morning. That would not prevent the animal from eating again ten minutes afterwards, when the vomiting possibly recurred. At the same time it did not lose much in condition. During the last seven months, however, the cat had been steadily losing flesh and seemed not to be able to eat well, apparently because of bad teeth. From watching the way it ate and the manner in which it fidgeted with its mouth, he was quite confident that one of the back teeth was loose, and on examination by a mouth speculum this was proved to be the case. He extracted the tooth, expecting thereby that the cat would improve, but such was not the case. The animal would take food, which it was quite eager and ready to eat, into its mouth, take one or two swallows and then would do its best to vomit. It gave him the impression that it had something lodged fairly high up in the alimentary tract, but on again examining the mouth with a speculum the only conditions he could find were two slightly enlarged tonsils. The cat was still continuing to try and vomit after every second or third mouthful of food and was voluntarily starving himself. In the first place he thought the explanation was either a foreign body, tuberculosis, or some malignant growth in the throat, but he could find none of those conditions.

Mr. FOREMAN suggested the condition might be due to dilatation of the œsophagus, or to partial paralysis of the œsophagus. He had a somewhat similar case some time previously and the only condition he could find on post mortem was a kind of sac in the œsophagus. Had Mr. Livesey used the probang? He could not suggest any treatment.

## ELECTION OF FELLOW.

Mr. W. S. KING, 23, East India Dock Road, E., was balloted for and unanimously elected a Fellow of the Society.

## NOTES ON THE PROBLEMS OF EVERY-DAY DOG PRACTICE. By Mr. G. H. LIVESY.

[Resumed discussion].

Mr. R. BENNETT remarked that ear canker was certainly a most troublesome condition to treat. He thought Mr. Livesey was quite correct in saying that a large proportion of such cases was due to acari. The treatment

which he (Mr. Bennett) found most satisfactory was to clean out the ear thoroughly with methylated spirit and then to fill it with glycerine, to which about 5 per cent. carbolic acid had been added. He had been rather afraid to use carbolic acid at first, but he had found no ill-effects by using a 5 per cent. solution in glycerine. He thought a good many cases of fractures did quite as well if left alone, but that certainly did not apply in all cases; and he thought Mr. Livesey was going a good deal too far when he said that it was criminal to set a fracture of the femur. He quite agreed that a fracture near the head of the femur was best left alone, but he thought a fracture at the distal end could be quite satisfactorily set. He thought if splints had to be used it was absolutely necessary to cut out the splints for each individual case, then to have them projected well beyond each end of the bone, and then the bandage applied. The bandage he had used with most satisfaction was an ordinary surgical bandage on which was spread a mixture of gum acacia and gum tragacanth. He generally brought the foot well forward and bandaged the whole of the limb round the splints down to the foot, extending the foot as far as possible. A practice which he had adopted recently, and which he thought of great advantage in cases of fracture, was to give a heavy dose of morphia so that the dog would be absolutely quiet for two or three days. He had never found any ill-effects from it, and he was quite sure that if the fractured limb was placed on a cushion and kept in position while the dog was lying down, a straighter limb would result. He had not seen any cases of spinal meningitis, but it certainly made him feel rather doubtful whether they were not cases of rheumatism, seeing that treatment with aspirin seemed to have such a good effect. In treating worms he thought 24 hours starvation was not a bit too much, followed by a purgative, and the worm medicine given as soon as the bowels acted freely. If they did not act he would use an enema and keep the dog moving about.

Mr. W. HUNTING supported Mr. Livesey's suggestion with regard to fractured femur. He could not for the life of him understand how a man ever bandaged a fractured femur a second time. It was of no use fixing one end of any fractured bone; the joint must be fixed above and below the fracture. That was an absolute impossibility with the femur, and the more weight was put on it in the way of a splint the more the dog was interfered with in taking care of the leg himself. Another point which had been referred to was canker of the ear. It was some time since he had treated a case of canker, but he thought the prescription he used to employ might give good results in more than one kind of canker. He used a mixture of ether, oil and creosote. He had an idea that the oil and ether would dissolve the wax in the ear and also would deal with any parasites which might be present, and with regard to the creosote, if there was some other pathological condition present at any rate it would do no harm, and as a good disinfectant it might even do some good. He had also tried another prescription on the strong recommendation of Mr. Samuel Bignell, namely, a solution of acetate of lead, and although he did not know exactly what the pathology of the cases were, in very many that treatment was extremely efficacious.

Prof. MACQUEEN said Mr. Livesey's paper was a departure from the usual lines of such efforts, and he must say that it was a very excellent effort indeed, one that ought to be encouraged as much as possible. It was really a better style of entertaining the members of the Society than that which was generally current. Dealing with the question of ear canker, until he had heard Mr. Livesey's remarks he had not been aware that there was any special difficulty in dealing with the ordinary case of canker, but apparently it was rather a formidable affection. He did not know whether Mr. Livesey had made any attempt at classification of canker, but there

were various degrees of it, and various conditions called canker. For those cases where there was a simple catarrh from the ear, whether due to the presence of parasites or not, he thought great benefit was likely to follow the introduction into the ear of an evaporating lotion consisting of an antiseptic made up with ether or with a mixture of ether and rectified spirit. To his mind that was the best application one could use. He did not believe in injecting the dog's ear. For those cases where there was distinct ulceration of the lining of the ear with prominent granulations, he thought rather different treatment was required. He believed in first of all washing out the ear and afterwards stopping it, taking care to keep the opposing surfaces from coming in contact, in order to promote healing.

He also desired to refer to luxation of the patella. Mr. Livesey had said that he had had 30 or 40 cases which he regarded as luxation of the patella. It had struck him (Prof. Macqueen) at the time that 30 or 40 cases of luxated patella in the dog was rather a large number, and he was still curious to know how the accident occurred, and how by restraining the movement of the animal for a limited period daily at the end of a short stick the luxation could be reduced. It was a good many years since he had examined the stifle joint of a dog, but his recollection of the construction of the stifle enabled him to say that if the patella in the dog was once really luxated it was not likely to be replaced permanently by any sort of manoeuvre like walking a dog at a slow pace at the end of a stick. The patella, in the dog, was embedded in the capsular ligament, and its margins were provided with small cartilaginous extensions. It had only one inferior or straight ligament, and, as in the horse, the bone gave attachment to the tendon of the extensor muscles of the stifle. The capsular ligament was fairly firm, and although it was not difficult to displace the patella, he was anxious to know from Mr. Livesey how he understood that it was replaced and kept in position when luxated. Mr. Livesey had not mentioned in what way he recognised luxation of the patella, except that the dog was inclined to go on three legs. Mr. Livesey in his reply might say how he diagnosed luxated patella and how he accounted for its being so common.

Mr. ROBERTS said in connection with the question of cysts between the digits, Mr. Livesey had recommended opening and cleaning out, and painting with tincture of iodine, and then washing with antiseptics. He would like to ask Mr. Livesey if he had found the results at all permanent. His own trouble had been that within a fortnight or a month people rang him up to say the dog had another on the same foot. He had never been able to find any satisfactory treatment, and he had been wondering if any polyvalent serums or vaccines had been used by any of the members. Apparently the contents of the cyst were suppurative, and he would like to know whether anybody had used the serums with any beneficial effect. With regard to the treatment of canker, he was inclined to agree with Prof. Macqueen that evaporating lotions were best. He might say that a solution of silver nitrate with methylated spirits or rectified spirits in water seemed to act like magic in the majority of cases.

Mr. HALFHEAD said he would like the members to give him some information with regard to chronic eczema in the dog. He had a case before him last November which would not yield to treatment. The owner, getting rather tired of his advice and treatment, brought the animal to London to some veterinary surgeon who said it was due to lice under the skin. He (Mr. Halfhead) told the owner that he had never heard of that condition before, but the owner replied that the London man was going to send some of his special dog soap and advise him (Mr. Halfhead) as regards the treatment. He had, however, heard nothing more, and was still treating the dog. It was a Pekinese about four years old, and there

was nothing to see except a dirty skin, which had a sort of black dirt on it which would not wash off. He had treated the animal with all sorts of lotions and medicines recommended by various veterinary surgeons, but nothing did him any good.

With regard to fracture of the femur, he had a case about a month ago of a fracture of the neck of the femur in a dog, and the animal had done splendidly by simply being left alone and kept in a perfectly level place, with a straw bed.

Mr. F. J. TAYLOR said it had occurred to him that the question of fracture as dealt with by Mr. Livesey was rather misleading as far as he (Mr. Taylor) was concerned. If the fracture of long bones was to be treated by simply exercising a dog, he thought the result would invariably be a soft union, or no union at all, or perhaps a bent bone, which would be very disappointing to the client. He remembered an instance of a whippet having broken the radius and ulna. The dog was very difficult to treat, frequently removing the bandages, and a certain amount of exercise was permitted by the sympathetic owner, which he did not intend it to have. The result was that a soft union took place, and he lost a very good client. He certainly did not attach much importance to the theory that in diseases of the ear the irritation which so frequently occurred was due invariably to acari; he thought it was probably the result of eczema or catarrh of the ear, and he generally treated the case on those lines by first cleansing the ear with a lotion which was composed of methylated spirit, liquid soap—(Eczematine)—carbolic acid, and glycerine. He argued it out that the glycerine would be cleansing and softening, and carbolic acid would be antiseptic and anti-parasitic, i.e. if any acari were present, and the soap and spirit a cleansing solvent to the hard wax in the base of the ear, thus preparing the area for the following preparation, which had been suggested to him by Mr. Henry Gray, namely: iodine, and carbolic acid and glycerine 1:20, to which he added a little rectified spirit: this application was most effective and quite safe, but should not be applied oftener than twice a week.

He had lately been carrying out, in connection with a Pathologist at St. Mary's Hospital, some experiments with the contents of chronic interdigital abscesses, which might be interesting to those members who had not tried the vaccine treatment of this disease. They had made many cultures and vaccines. The cultures generally contained streptococci, and others pyogenic organisms, and a series of inoculations had been carried out in dogs, once a week, or oftener in some cases, with the vaccine prepared from each individual case. He had kept records of five cases during the last two months, and regretted to say that they had all been disappointingly unsuccessful so far. A great number of cases of interdigital abscesses were seen by him in his present practice, and thinking prevention was better than cure, he cleaned between the digits twice a week with a very narrow brush, applying iodine and glycerine after dry cleansing in this way, or allowed the dog to stand in a very shallow bath containing warm water and creoline (1%) for a short time. That treatment had a good result as a rule. He worked the dirt, etc. from between the digits with the fingers whilst the feet were submerged. When the cysts required operative treatment he cut an elliptical shaped piece out of the top of them, cauterised the interior with nitrate of silver, and put a hard piece of wool deep into the cyst, bandaged it into position, and left it for two days; then dressed with tincture of iodine every other day for a week. He found that treatment invariably successful. Of course recurrence happened very frequently if preventive precautions were not taken as he suggested.

#### REPLY.

Mr. G. H. LIVESEY, in reply, thanked the members for giving his communication such an excellent discussion. He was sorry to say the discussion had not limited itself to the points raised in the paper; nearly every speaker had varied the paper to suit more or less his own ideas, and had introduced something new, till it had begun to grow out of all bounds. He also noticed that most of the speakers seemed to think that the paper was a list of cases which had come under his notice and in which he had absolute failure. He did not wish so bad an advertisement of himself to go out to the general public. He had confined his attention to dog practice for many years, and he had had as good, and perhaps a greater number of successes as the average general practitioner. But in those cases which he had brought before the notice of the members he had had particular trouble—not necessarily failure—and that was why he thought they would be interesting.

The discussion had been most entertaining, in that if one member rose and said one thing, another member followed and said something diametrically opposite, showing that the views on the subject were as varied as they could be. He thanked Mr. Sutton for his excellent opening, and he was particularly glad to have his support in so many of the items which he had mentioned. He must say that he had felt very disappointed and very annoyed with one speaker. Those who criticised a paper could speak only once and could not answer remarks subsequently made. At the last meeting Mr. Almond had been good enough to criticise the paper, and although he disagreed with Mr. Almond in almost everything he said, he was much obliged to him for his courtesy in speaking and in giving his experience of over forty years' practice. He felt very annoyed with Mr. Gray who spoke of Mr. Almond in the way he had done. Such a procedure could do nothing for the good of the Society. If a gentleman got up and spoke as Mr. Gray had done at the last meeting it was only likely to stultify further discussion. He took great personal affront at Mr. Gray's conduct.

Turning to the discussion on the paper, with regard to the subject of canker, nearly every member thought that he was giving a dissertation on the subject of canker in the dog. That was not his point at all. It was not his intention to say whether canker arose from eczema of the ear flap or was due to acari, but he believed that 90 per cent. of cases of canker were due to the presence of acari. His point, and the one which he had desired to raise in his paper, was, supposing that one had cases of canker arising from the presence of acari, how were those acari going to be destroyed? and he had mentioned a large number of drugs and preparations which he had used more or less ineffectually. Mr. Sutton used Silver nitrate and Oxide of mercury in the form of an ointment. He (Mr. Livesey) had found Oxide of mercury fairly useful, but one could not be always perfectly certain of obtaining a cure. Mr. Foreman suggested the use of Hydrogen peroxide used in the strength of five volumes per cent. He (Mr. Livesey) had used that treatment repeatedly, and in that connection he thought he might introduce the subject of suppurating ears. He knew nothing better for suppurating canker than to thoroughly clean the external auditory meatus with from two to five volumes of Hydrogen peroxide until all frothing had ceased, to carefully dry the ear and then lubricate it with some such dressing as ordinary Zinc oxide ointment, putting a piece about the size of half a Barcelona nut into the ear and working it down into the depths. In that way Professor Macqueen's point of keeping sore surfaces from rubbing against one another would be met. The hydrogen peroxide did not always remove all the acari.



Mr. MacCormack used various sorts of treatment, and he (Mr. Livesey) did not think he would effect many permanent cures with the dressings he used. He thought the most interesting and possibly the most useful point which Mr. MacCormack had brought forward was, that if one was going to try and cure a case of parasitic canker one should not confine the treatment to the inside of the ear alone, but the face, the top of the head, and the underside of the neck should be thoroughly clean. Mr. MacCormack was perfectly right when he said that the cause of so many cases of recurrent parasitic canker was that one cured the ear, but neglected the face and the head. A dog or cat through persistent scratching or shaking would scatter the acari and their eggs all over the fur of the head and neck, from which places the acari would regain their *habitat* in the ear.

There seemed to be a general consensus of opinion as to the use of iodine, glycerine, and carbolic acid, either singly or combined. He was surprised that no member had referred to Stavesacre which was supposed to be so useful. Mr. Gray had so strongly recommended its use for quite a period in the lay press that he (Mr. Livesey) wondered why he had not the courage of his opinions and brought it forward at the last meeting. No member had mentioned white precipitate powder, which he had found fairly useful.

He had been asked why he did not use powders. He had used a large number, and where the ear was just slightly moist, with parts of the meatus simply a little excoriated, he thought the case would do very well with powders introduced with an insufflator. Prof. Macqueen's use of evaporating lotions brought in the subject of drying and cooling the ear rapidly. For that purpose he had for a long time used methylated spirits, or eau de cologne if it was a rich lady's pet dog, for cleaning the ear out before putting in further dressings. He then put in a dry dressing.

He totally disagreed with Mr. Taylor as to it being essentially an eczema of the ear. Mr. Davis had said that the disease was often not due to acari, and that his worst cases had always been seen in white Poms. That was against his (Mr. Livesey's) experience. The worst cases of canker he had seen had been in those dogs which grew hair in the external auditory meatus, such as Bedingtons, Poodles and Dandies. The presence of acari caused a quantity of brown excrement, which was not wax, to be formed, which got matted up with the fur into a kind of hard ball. It was almost impossible to clean out, and unless the hair was plucked or cut right out the external auditory meatus could not be cleaned. He thought that possibly paraffin oil mixed with about five times its volume of olive oil or almond oil would have a very good effect in killing the creatures, but at the present time he must say that his best results had been obtained from glycerine and iodine.

With regard to fracture of the radius, nearly every speaker had seemed to think that he was referring to *fracture of the fore limb*, whereas he was talking of uncomplicated fracture of the radius, inferring of course that the ulna was not broken. Many speakers seemed to think they could have a leg bent at right angles. For instance, Mr. Gray thought he (Mr. Livesey) was trying to bring up some new treatment, and spoke of legs he had seen bent at right angles. If the ulna was not broken the leg could not be at right angles. His whole point was that in the forearm there were two bones, and if one was broken the other should be allowed to act as a splint and the muscles got into as good a condition as possible so that the broken bone might have muscular support, as well as bony support. He did not mean to say that if there was a fracture of the ulna and a fracture of the radius at approximately the same place nothing should be done. Mr. Davis' practice was to limit the action of the muscles. He thought he was wrong; he thought the muscles ought to be prevented becoming atrophied,

and that the broken ends of the bone should be given all the support they could from the muscles, and that one should trust the bone to keep the leg more or less straight. Mr. Almond had quite a novel way of treating fracture of the radius. He used a visiting card as a splint. He did not know what Mr. Almond would do with an Airedale or a bloodhound or a Great Dane, or St. Bernard. It would be interesting to see his card!

With regard to so-called meningitis, he had brought that forward because he wanted to hear what the members had to say; he did not expect anyone would altogether agree with him. He had seen cases of chronic ossifying pachymeningitis, and he must say that he quite agreed with all that Mr. Gray had said about it. He had also seen acute muscular rheumatism, and he thought he had seen the condition which Mr. Gray had described as similar to hæmoglobinuria in the horse. That was to say sudden attacks, or violent pain following undue exertion afterwards. His trouble was how to diagnose in the early stages between spinal meningitis—and an acute form of muscular rheumatism. There was no doubt that in chronic ossifying pachymeningitis the disease ran a definite course, and if one saw the case long enough there was only one possible result, namely, permanent paralysis.

With regard to the case of simple luxation of the patella, he was glad Mr. Foreman approved of his treatment, but Mr. MacCormack had said that the owners would not carry it out. All he (Mr. Livesey) could say was that every single one of his cases had been treated at its own home by his clients. He had found that people would do it if the reason was pointed out to them. Prof. Macqueen had brought up a most interesting point—how did it happen, and what were the symptoms? He (Mr. Livesey) had not said anything about symptoms, but simply spoke of a dog suffering from subluxation of the patella and lifting his leg up. He did not mention any other symptom than that of carrying the leg. How it happened was that a dog was perhaps allowed to play with a ball, or to race after a toy or perhaps a rabbit, and when it got to the end of its run and tried to turn round suddenly the hind leg slipped, particularly on a polished floor or linoleum, or greasy surface. The dog at once carried the stifle bent, and screamed with pain. If the leg was stretched out, and the hand placed on the inside of the stifle, one could feel something snap back into place. That he believed to be the patella. The patella might be embedded in the capsular ligament of the joint. What he believed happened was that, for some reason or other, the leg was slightly bent, and instead of being bent with the patella just in its right place, the patella was slipped outwards or inwards, causing a sudden stretching of the capsular ligament of the stifle joint. If the dog was left alone and nothing done to help him, it would keep the leg rather away from the body, and when the animal wanted to get it straight it would kick its leg straight out behind. It would lift the leg off the ground and stretch all the joints, like a cat stretching, and then the patella slipped into place by itself; but it did not stay there, and the dog soon preferred to run on three legs. He had found that if he could make the dog put all four legs down and prevent it carrying the leg, it would get well within three weeks. He presumed the capsular ligament regained its tone, and the dog no longer had the tendency to go lame.

As to worms in dogs, each person seemed to have had different experience. One man had found it extremely easy to get rid of worms, and another man had found it difficult. He thought it was very difficult to get rid of worms unless the dog was properly prepared. He did not think it was always necessary to have 24 hours' starvation, nor was it always necessary to give a purge. If one caught a dog at a time when its bowels were loose that was an excellent period to give a dose, but if a dog



was inclined to be at all constipated then he should be purged as well as starved. There was, however, one class of dog which was nearly hopeless. No matter what was given it, it would wait for ten minutes and then vomit. The only thing he knew of to stop that was to give the animal 3 to 4 grains of chlorotone. Mr. Gray had repeated his views—that worms caused no harm in dogs. He had hoped that Mr. Gray, instead, would have given the members his experience of how to get rid of them, because he believed that Mr. Gray professed to be particularly successful in that matter.

Turning to his cases of so-called cat influenza, he had been horrified to find that so many practitioners gave cats carbolic acid in powder by the mouth. That was a thing he never dared to do in his practice. He understood from Mr. Foreman that he did it with impunity, and that his cats never died.

Mr. FOREMAN, interposing, said he had not said that.

Mr. LIVESSEY said he had found such things extremely poisonous, and he was only astonished that others had had better luck than he had. No one seemed to have told him whether it was influenza or distemper. He did not know what it was himself.

Dog practice was very interesting, particularly to those who made it their special work. But those who did so did not always see perhaps the most interesting cases. When one only treated dogs, one was brought every ordinary case possible. He knew from personal experience that when one was out in the wilds of the country, a case was not brought unless it was a pretty bad one, and sometimes a very interesting one. So that the general practitioner who did not specialise in dog practice very often obtained the pick of the cases. But he did not obtain the experience; he did not get a very large number of such cases, and it was only when a large number was obtained that the real difficulties and niceties of practice were met with.

Mr. FOREMAN said he thought he ought to correct a misleading impression. Mr. Livessey seemed to think that all his (Mr. Foreman's) cats got better when treated with carbolic acid. That was not the case by a long way. What he meant to convey was that he had had more success with carbolic acid than with other drugs.

On the motion of Mr. Perryman, seconded by Mr. Slocock, a hearty vote of thanks was accorded Mr. G. H. Livessey for his interesting paper.

On the motion of Mr. Jones, seconded by Mr. King, a hearty vote of thanks was accorded to Mr. Buxton for his interesting specimens.

HUGH A. MACCORMACK, Hon. Sec.

#### NORTH OF IRELAND VETERINARY MEDICAL ASSOCIATION.

The annual meeting was held at the Rooms, 7 North Street, Belfast, on the 30th January. The President, Mr. Howard McConnell, of Armagh, in the chair. There were also present: Messrs. Ross, Johnston, Gregg, Jordon, Belfast; and Capt. Hodgkins, A.V.C.

Letters of apology for absence were received from Messrs. Smith, Gibson, Kernohan, McKenny, and Prof. Dewar.

The minutes of the last meeting having been taken as read, the Council submitted the following report:—

Your Council held a meeting on the 17th inst., at Messrs. Dunlop and Ross' offices, May Street, Belfast. The President occupied the chair, and Messrs. Ross, Johnston, McLean, Gregg, and Jordon, of Belfast; J. A. Thompson, J.P., Lurgan; and McRoberts, Comber, were present.

#### OFFICERS.

It was decided to submit the following names:

*President.*—Mr. J. A. Jordon, M.R.C.V.S.

*Hon. Treasurer.*—Mr. J. A. Thompson, J.P., F.R.C.V.S.

*Hon. Sec.*—Mr. F. W. Emery, F.R.C.V.S.

*Vice-presidents.*—Messrs. W. C. M. Smith, Newry; J. Kernohan, Ballymena.

*Council.*—Messrs. McConnell, McLean, Johnston, McAleer, and Gregg.

The suggestions put forward by the Council were adopted by the meeting, but as Mr. Emery was not present the question of his appointment to the secretaryship could not be definitely settled, it was resolved to elect Mr. J. Ewing Johnston, the members present being unanimous in their desire that Mr. Johnston should undertake the duties.

Mr. Howard McConnell having vacated the chair, Mr. J. A. Jordan assumed office and expressed his sincere thanks to the members for their kindness in electing him their President for the ensuing year.

The Treasurer was authorised to forward the sum of five guineas to Sir Stewart Stockman as a first instalment to the funds of the International Veterinary Congress.

Mr. Howard McConnell read a paper on "Foot-and-Mouth Disease," upon which the discussion was adjourned to the next meeting.

A cordial vote of thanks to the essayist and to the President having been passed with acclamation, the meeting closed.

FRED. W. EMERY, Hon. Sec. (*pro tem.*)

#### Glanders in New York.

Hon. Calvin J. Huson, Commissioner of Agriculture of the State of New York, called a conference on glanders at the office of the second Assistant Commissioner in New York City, on January 17. Twenty veterinarians were in attendance, also representatives from two of the leading horse marts.

*Causes.*—Some of the causes cited for the prevalence of glanders, especially in Greater New York, were the large number of horses in our streets, the crowded conditions of our stables, their unsanitary condition, public watering troughs, the indiscriminate use of glanders vaccine, and the tendency to unlawfully dispose of reactors, thereby disseminating the infecting centres. Some of the obvious *remedies* offered were the licensing of buildings used for stables, and only issuing licenses to those reaching a satisfactory standard of sanitation, systematic inspection to keep them up to that standard, the same inspection to apply to the horses housed therein, the abolition or regulation of the use of the watering trough and the restriction of the use of glanders vaccine to horses that have been shown to be free from glanders infection by the blood tests.

A point raised as being objectionable, and possibly tending to the dissemination of the disease, is the delay caused by waiting for the order to destroy the animals from Albany. A remedy to this was offered in having some one in the city with power to act for the Commissioner in that capacity, to which the Commissioner cheerfully acquiesced. In fact, Commissioner Huson, by word and act, throughout the entire conference, gave evidence that he was looking for remedies to overcome this great menace to the horse population of the State, and looking mighty hard.

#### Editors American Veterinary Review.

Gentlemen,—Your reports of society meetings are always interesting reading, particularly to non-society members. I take it for granted that your report of the December meeting of the Veterinary Medical Association of New York City is correct.

As to the views expressed and discussed at the December meeting, of cases of glanders and farcy mak-

ing complete recoveries; in my sixty years of active practice I never have known of an animal affected with glanders or farcy to recover to a normal condition.

One member, in his official capacity, relates that he had made post-mortem examinations on two cases that had external farcy lesions, but no visible internal lesions. In the name of equine pathology what did he expect to find?

Both the medical and veterinary professions in Brooklyn have had ample opportunities of becoming familiar with the etiology and pathology of equine glanders. There is no other city where the scourge is so prevalent and widespread. It is more prevalent to-day than it was twenty years ago, taking into consideration the relative number of horses.

The increase is what might be expected, when one knows the method of stamping out adopted by the local authorities. Veterinary surgeons are expected to report all cases of contagious diseases in animals to the Department of Health, including glanders and farcy. Then the Department veterinary expert visits said animal, sometimes the same day, but frequently not until the elapse of four or five days, in order to give the veterinary inspector from Albany time to get there and confirm the diagnosis. The affected animal all this time is allowed to cohabit unrestricted with the other animals. No isolation of said suspected case during the interval.

The inspector makes no further examination, though there may be other animals showing pronounced clinical lesions. He is in too great a hurry. Then follows a form of disinfecting the individual stall occupied by the condemned animal. He calls for a pail of water, into which he drops so many tablets of bichloride of mercury, with which he sprinkles said stall, using, usually, an old broom. This so-called disinfecting extends also to the feed remaining in the stall, which may be used by the next tenant. The disinfecting of the harness and blanket used by the affected animal is completely ignored.

Such being the system employed for the stamping out of glanders, are you surprised at its perceptible increase in this city?

The vital point is that the local authorities have in their employ so-called members of my profession who, for the past twenty years, have sanctioned these lax and ineffectual methods, resulting in discredit to the veterinary profession.

Those in charge of the stamping out of glanders must give more attention to the life history of this germ which propagates this disease. It has a latent period, in the system, of undefined duration, showing no clinical symptoms, *at which time the mallein test should be used in every case of animals that have cohabited with affected cases; mallein being, in my experience, a reliable test.*

Until the great importance of a test during this latent period is realised there will continue to be a criminal propagation instead of a wholesome stamping out of this disease.—Yours truly,

L. McLEAN, M.R.C.V.S.

Brooklyn, N.Y., Feb. 9th, 1913.

[This letter has been slightly abridged.]

The shepherd's crook is fast disappearing. Like the old blue smock worn by shepherds in days gone by, it will soon be looked upon as a relic, and no longer is the little town of Pyecombe in Sussex famous for its crooks. A crook used very frequently to be a heirloom handed down from father to son in a family of shepherds.

### R.S.P.C.A. Case at Torpoint.

At Torpoint Petty Sessions on Tuesday, March 11th, before Messrs. J. S. Hawker (in the chair), A. J. Boger, W. Rose, W. Ashton Lewis, and J. Parsons, Fernley Higman, farmer, Pool Farm, Sheviock, was summoned for ill-treating a gelding by letting it work whilst in an unfit state, and William Henry Higman, his father, and the owner of the animal, was summoned for permitting it to work.—Inspector H. T. Jowett, R.S.P.C.A., prosecuted, and Mr. Mayburne Pearce defended.

At the outset, the witnesses, at the request of Insp. Jowett, were requested to leave the court.

Mr. Pearce, however, maintained that an exception should be made in the case of Mr. J. Dunstan, veterinary surgeon, seeing that he was an expert witness.

A strong objection to this was made by the Inspector, since, he said, he was going to allege there had been a deliberate attempt to frustrate the ends of justice. He was also going to suggest that the defence which would be raised was concocted; that was the reason he did not wish him to hear the evidence.

The Bench decided to allow Mr. Dunstan to remain in the court.

P.C. Stephens said on February 8th, whilst on duty at Polscove Hill, Sheviock, he saw the gelding drawing a cart laden with hay. Noticing that the horse was very lame, he asked Higman, jun., what was ailing it. He replied that it was suffering from a canker in the hoof, and then mentioned that about six weeks before the animal was seen by a veterinary surgeon, who said it could be allowed to do light work on the farm. Witness put the question plainly to the defendant: "Do you consider it fit to be taken on the road?" In reply the defendant remarked: "No." Subsequently another farm hand of the name of Pearn told witness that he had refused to work the animal, and affirmed that his master had informed him that he would have to leave unless he did so. On the morrow (Sunday) witness went to the farm and began to speak on the affair with the senior defendant, who, however, bade him come another day, giving as his reason that he did not consider the Sabbath a fit day on which to discuss the matter. Two days later, accompanied by Inspector Jowett, he walked to a field near the farm, where he found the horse lying dead, it had been shot and the affected leg removed.

Geo. Pearn (20), giving evidence, said when he refused to work the animal, Mr. Higman, sen., ordered him to work the horse or "clear out." Witness went.

Inspector Jowett, in his evidence, said the elder defendant told him that Mr. Dunstan advised that the horse was fit to work on the farm, but not on the road. Since then, however, Mr. Dunstan had again examined the animal, and intimated that in a month or six weeks' time it would be cruel to work the animal as it would have grown worse. To save any further trouble he advised defendant to have it killed at once. This advice was acted upon, and the leg was cut off and given to Mr. Dunstan, who promised to boil it so as to show him the "ringbone."

In reply to Mr. Pearce, witness said he did not consider that Mr. Dunstan acted either professionally or straightforwardly.

Mr. Higman, sen., gave evidence on oath, and said he did not suppose the gelding had done ten jobs on the road since November. In regard to the farm hand Pearn, when he refused to work the horse, witness told him he was not going to have a man that chose his jobs, whereupon Pearn swore and acted like a madman.

Fernley Higman also gave evidence, as well as a farmer named Hill.

Mr. John Dunstan, veterinary surgeon, of Liskeard, said when he saw the horse on February 11th it could

well have been worked on earth, although not on the road. He entered a strong protest against the "contemptible" manner in which the Society's representative had acted. He was perfectly in agreement with the objects of the Society, but declared that the methods they adopted were very objectionable. Mr. Jowett had no right to say he had refused assistance to the Society. The reason he took the limb away was to make a post mortem examination. It was chiefly on account of the canker, which was incurable, that he advised Mr. Higman to have the animal shot. He had given Mr. Jowett permission to see the leg.

Mr. Pearce, addressing the magistrates, resented the allegation made by Inspector Jowett that Mr. Dunstan took away the horse's leg in order to prevent him from seeing it. He himself did not believe that a man in Mr. Dunstan's position—vice-president of the R.C.V.S.—would be so interested in Mr. Higman's case as to be guilty of any act to defeat the ends of justice.

Each of the defendants was fined £1 and costs.—*The Western Morning News.*

#### The Future of the R.V.C., Dublin.

At the recent meeting of the Council of the Royal Dublin Society, the recommendation of the Committee of Agriculture, on the motion of which the Right Hon. Frederick Wrench, Vice-president, had given notice, was approved:—"That in the opinion of the Council it would be greatly to the advantage of this country if the Department of Agriculture and Technical Instruction took over the management of the Royal Veterinary College of Ireland. That the Department of Agriculture and Technical Instruction be urged in the reconstitution of their veterinary branch to establish a control station where animals could undergo such an examination and testing as would enable them, if it could be arranged with the respective Governments, to be received into other parts of the Empire and abroad without having to undergo any further test or quarantine."—*The Farmers' Gazette* (Dublin).

#### Royal Veterinary College of Ireland.

##### TAKEN OVER BY THE DEPARTMENT.

Public interest will naturally be evoked by the almost unanimous decision of the Governors of the Royal Veterinary College of Ireland to accept the offer made to them by the Department of Agriculture and Technical Instruction for Ireland to take over the College, and be responsible in the future for its financial and administrative responsibilities. A short statement of what induced the Governors to take this step may not be uninteresting.

The financial position of the College is, at the present time, a sound one; there is a larger balance in the bank than at the end of any former session. There are over 130 students entered on the books; the teaching is quite as efficient as it was at any period of the existence of the College. Why should there be any change in its management? The income of the College is mainly derived from the fees of the students, supplemented by a small research grant of the value, after deducting expenses, of about £60 a year, and a small capitation grant which varies with the number of students. This must always be of a fluctuating nature. For some years there was a considerable drop in the number of students entering the veterinary profession, but the Irish College was singularly fortunate in suffering less than the English and Scotch Colleges from this drop. Still, the possibility of a substantial reduction in the number of students cannot be left out of consideration, especially

having regard to the energetic and active competition with the Colleges in London and Scotland. A new "Dick" College is being built in Edinburgh at an estimated cost of £50,000; the London College, too, is actively improving its position. So, with the possibility of a reduced income from fees, the College expenditure cannot be lessened. The Professors are underpaid, and the College is understaffed. There are no funds to provide substitutes for professors in case of illness. The upkeep is increasingly expensive as the College multiplies its years. There is no sum set apart for research work, for a museum, or a library.

In view of this condition of things, and since it is impossible for a Veterinary College to maintain its position with an income almost entirely derived from students' fees, an application was made to the Development Fund Commissioners for a grant in aid of the teaching work of the College. This application was strongly supported by the Department, but the Commissioners were unable to allocate any grant for the endowment of teaching, as such grants should come out of the funds of the Agricultural Department—funds already earmarked to the fullest degree—so no door remained open to the College for procuring financial assistance. Soon after this incident came the unfortunate outbreak of foot-and-mouth disease, which involved the country in such substantial pecuniary loss, and created such bitterness and hostility between agriculturists in Ireland and England. It was clear that a thorough re-organisation of the Agricultural Department should be carried out, and that ample provision should be made for dealing with epidemics of disease in animals, should they occur. To quote from the Memorandum of the Department:—

"The question of the Royal Veterinary College of Ireland occupies an important place. In the College must be trained the future corps of veterinarians required for Ireland, both for official duties and for private practice, as well as those who seek qualification for work elsewhere. To render that service to the country with full success the College requires to be placed in a state of increased efficiency, and to be secured in a position in which that efficiency can be maintained."

The conditions of taking over the College specified in the memorandum of the Department are as follows:—

(1) To become responsible for the maintenance of the College; the payment of its staff; the necessary increase of its staff; the necessary upkeep and development of its equipment; and to do all that might be practicable to bring the College up to the highest degree of efficiency in every respect and maintain it at that level; (2) to establish the College Research Laboratory on a basis of adequate efficiency, both for the educational requirements of the College and for the purposes of independent investigations; and to facilitate its co-ordination, in regard both to work and to opportunities, with all other work in connection with veterinary research done under the auspices of the Department.

The assumption of this complete financial and administrative responsibility necessarily involved effective control by the Department, thus establishing a condition of management similar to what obtains in educational institutions such as the Royal College of Science, the Albert College, Glasnevin, and the Munster Institute, Cork. To have the advantage of being assisted in the administration of the College the present Board of Governors, constituted as it is now, would act as an Advisory Council for the purpose of advising the Department on matters connected with the educational policy of the College.

The Department, it is understood, have in contemplation as part of their measures for veterinary administration, the providing of land for the purposes of research and diagnostic work, and the staff and students of the Veterinary College will thus have special faci-

ties afforded them of studying conditions of disease of animals.

The proposed change in the position of the Veterinary College will be to establish, for the first time in the United Kingdom, a State Department of Agriculture which will include a Veterinary College, under conditions which exist in most of the great capitals and agricultural centres of Europe.—*Irish Times*.

#### **Alleged Cruelty to a Horse at Dumfries.**

At the Dumfries Police Court on Friday, March 7th, before Bailie O'Brien, Thomas Bryson, Drummond's Close, High Street, a cabman in the employment of Mr. W. Irving, posting-master, English Street, was charged with having cruelly ill-treated a horse in High Street on 11th February through causing it to draw a cab while suffering from lameness in the near hind leg.

Mr. G. B. Carruthers, of Messrs. Craig and Geddes, appeared on behalf of accused, and tendered a plea of not guilty. The prosecution was conducted by Mr. James Kiscock, procurator-fiscal.

Inspector Durham, of the Society for the Prevention of Cruelty to Animals, stated that when in High Street on 11th February, between four and five o'clock in the afternoon, he saw accused driving a horse which was lame in the near hind leg. He followed the horse into Castle Street, and on speaking to the driver he admitted that the horse had a bit of a limp, and also that it was the same animal that witness had caused to be taken off the streets some time previously. That day the horse had been working from ten o'clock. Witness examined the horse for spavin, and found this situated on the inside of the leg. This disease was caused by a bone locking the joint. It was decidedly cruel to work the horse in the condition it was in, and the manner in which it extended the limb showed that the animal was uneasy.

Cross-examined: He never heard of a case of mechanical lameness being brought about by spavin.

Re-examined: Witness saw Mr. Irving, the owner of the horse, and he admitted that the animal was unfit, and that it was through a mistake it was out. When he saw the man who was in charge of the stables on 11th February, he said there was not another horse left in the stable that day, otherwise it would not have been sent out. Where a horse was suffering from mechanical lameness it might be fit for work in a field where the concussion was not great, but it could not perform hard work on streets without suffering pain.

Constable Hastings and Sergeant Killop spoke to seeing the horse on the street, and they corroborated that it was suffering from lameness.

Mr. John Baird, veterinary surgeon, Castle Street, stated that he examined the horse on 11th February, and he found it going very lame. He had the horse run on the street, and it was practically going on three legs. While standing, the animal lifted its leg off the ground as if trying to ease it. The lameness was caused by an old-standing spavin in the near hind leg. Spavin was due to a sprain or other injury to the hock bones, and there was always inflammation and very often ulceration between the small bones of the hock joint. No doubt the horse was suffering from a little mechanical lameness, but the principal trouble was from the spavin.

For the defence, Mr. William Irving, posting-master, stated that his business at the English Street yard was managed by James Davidson, and at the Commercial Yard by John Anderson. He sold the horse in question on 12th February to Mr. Smith, farmer, Cairnyard, Beeswing. He saw the animal on Thursday, and it was in very good condition, much the same as it was on the

day it was sold. He did not think that the horse was being subjected to any ill-treatment whatever.

Cross-examined: He did not think he said in the presence of the Inspector and Sergeant Killop that the horse was out through a mistake, and if he did say so it was brought about by the provoking way in which the Inspector had come to him about the horse.

Mr. James Lindsay, veterinary surgeon, Castle Street, said that he examined the horse on Thursday at Cairnyard. It was a little stiff in the near hind leg, but it could not be called lameness. He saw the animal in the beginning of February and there was no signs of lameness then. He found a spavin on the inside of the hock, and it was of sixteen or eighteen months' standing. A spavin only gave pain when it was in course of formation, and one could see scores of horses on the streets with spavins and working all right. The horse was only suffering from mechanical lameness, and this did not give pain. An old spavin did not cause pain, but gave rise to mechanical lameness.

Mr. M'Nae, veterinary surgeon, Maxwelltown, said the horse had a spavin of long standing, but it was quite fit for work unless taken out at an extra speed or over an extra distance.

Mr. Smith, farmer, Cairnyard, Beeswing, stated that he purchased the horse from Mr. Irving on 12th February for £16. It showed no signs of lameness, and he was perfectly satisfied with his purchase.

James Davidson, foreman with Mr. Irving at the English Street yard, stated that he was off work on 11th February through illness, but on the following day, when the horse was sold, witness saw signs of a little stiffness, but no lameness.

John Anderson, another of Mr. Irving's employees, stated that it was on his instructions that the horse was taken out on 11th February. It was quite sound and in every way fit for work. For two days before the 11th February the animal had been kept in the stables resting, but up to that time the animal had been taking its share along with the other horses.

Charles M'Call, William Kirkpatrick, and Peter Kelly, cabmen; Alexander Nelson, clerk; William M'Donald, 30 English Street; and Thomas Bryson, the accused, were also examined, and denied that the animal was going lame. They said that it was just a little stiff.

This closed the evidence, and the Bailie said he would like to ask the veterinary surgeons if a horse with a spavin of long standing could suffer pain after the inflammation had disappeared.

Mr. Baird answered that it could, and Mr. Lindsay and Mr. M'Nae both answered that it certainly could not.

Mr. Bailie said that the case was a somewhat complicated one, and in the whole circumstances he was inclined to think that there was no cruelty, and he found the charge not proven.—*Dumfries and Galloway Saturday Standard*.

#### **Cruelty to Animals—An Advisory Committee.**

In accordance with the recommendation of the Royal Commission on Vivisection, the Home Secretary has appointed an Advisory Committee to assist him in the administration of the Cruelty to Animals Act, 1876. The members of the Committee, who have been selected from names submitted by the Royal Society and the Royal Colleges of Physicians and Surgeons, are:

Sir Anthony Bowlby, C.M.G., F.R.C.S., Sir John Rose Bradford, K.C.M.G., M.D., D.Sc., F.R.C.P., F.R.S., Sir Horatio Bryan Donkin, M.D., F.R.C.P., George Henry Makins, Esq., C.B., F.R.C.S., The Lord Moulton of Bank, Seymour J. Sharkey, Esq., M.D., F.R.C.P., and Charters J. Symonds, Esq., M.D., M.S., F.R.C.S.

## REVIEW.

VINTON'S LIVE STOCK MODELS. No. 2. ANATOMICAL MODEL OF THE MARE. Price 2/6 net. (Vinton & Co., Ltd., 8, Bream's Buildings, Chancery Lane, London, E.C.).

This publication is one of a series of six anatomical models produced by the same firm, and comprising the horse, mare, bull, cow, sheep, and pig. Each model consists of five coloured figures, which respectively show (1) outward conformation, (2) skeleton, (3) arteries and veins, (4) muscles, and (5) internal organs. The parts are numbered to correspond with a key index, and in the fifth figure the organs are made movable to facilitate the study of their relations. In the model of the mare before us the pregnant uterus and the fetus at presentation are shown.

All veterinary surgeons are familiar with anatomical models of this description, and we see no particularly noteworthy feature in the present one. But its price, considering the amount of work involved in its preparation, is certainly very low; and it may confidently be recommended to any owner of horses. The series of models of which it forms the second may be obtained either singly or in sets, and all are of the same price of half-a-crown net.

## PARLIAMENTARY.

## NEW BILL.

In the House of Commons on Thursday, March 13.

Sir F. BANBURY (City of London, Opp.)—To prohibit experiments upon dogs.

## Victoria Veterinary Benevolent Fund.

Dear Sir,

May I ask you to publish in your excellent Journal an appeal to the members of the profession.

I want to ask those members of the Fund whose subscriptions are due to forward to me as soon as convenient, and those members of the profession who have been thinking for some time that they ought to subscribe, to do so at once.

It will be apparent to all that much money, which is spent on literature and postages, would be far better expended in relieving the distress of our old members and the widows and children of our brethren who are gone.

Your previous generosity and help to our Fund is my only excuse for trespassing.

Sincerely yours,

WM. SHIPLEY, Hon. Sec.

Southtown, Gt. Yarmouth.

## The Assimilation of Food.

To the Editor of *The Bradford Daily Telegraph*.

Sir,—May I set before your readers my theory of the assimilation of food? (1) We masticate and insalivate in the mouth. (2) The stomach converts it into gas. (3) The lungs carry the gas to the heart. (4) The heart converts it into blood and pulsates it throughout the system by means of the veins, arteries, and capillaries. —Yours, etc. J. P. SANDLANDS.

Brigstock, Thrapton, Dec. 20th.

[The correspondent who sends us the foregoing says, "The author is a clergyman, so there is some excuse . . . "].

## Personal.

Mr. DAVID S. PRENTICE, M.R.C.V.S., formerly Superintending Inspector, has been promoted to the post of Chief Inspector of the Veterinary Branch of the Department of Agriculture, in room of Mr. Matthew Hedley, F.R.C.V.S., lately deceased. Mr. Prentice has been in the service of the Veterinary Branch since the year 1882.

Prof. ANNETT, of the Liverpool School of Tropical Medicine, has opened at Runcorn, his native place, a tuberculosis dispensary, where, with the help of his assistants, he will give free treatment to poor patients by means of tuberculin. The dispensary, at which inoculations will be given twice a week, possesses accommodation for some thirty to forty patients. Additional gratitude will be felt for the Professor's action if to the freedom treatment that has been started is added a record of the results attained by the tuberculin method.—*The Hospital*.

Mr. T. B. HAMILTON, M.R.C.V.S., delivered the fourth lecture of the course on the "Care of the Horse" in Glasgow, on Tuesday night, 11th inst., under the auspices of the Animals Protection Association, and the chair was occupied by Mr. R. J. Hardie, C.A. There was a large attendance. Mr. Hamilton dealt with the weights which animals were called upon to draw in the streets of Glasgow, and said that frequently horses were grossly overloaded. This was hard on horses, especially when the streets were not in a condition to give a proper foothold to the animals. In this connection he mentioned the substitution of asphalt for granite setts in many of the streets, and said that with asphalt the horses received no grip when pulling their load. Mr. Hamilton also dealt with the diseases of bones which are directly attributable to working on hard roads, and he indicated the symptoms of the most common kinds of lameness to which cart horses are subject. Diagrams were afterwards shown of various injuries to horses, while limelight views were given of famous Clydesdales and of a horse of Messrs. James Dunlop & Co., Clyde Iron Works, which had for five years in succession gained the first prize given by the Society for the Prevention of Cruelty to Animals for the best dressed horse.—*The Scottish Farmer*.

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, March 14.

REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. C. H. Hylton Joliffe retires, receiving a gratuity. Dated March 15.

The undermentioned officers have been transferred to the stations as below for duty:—

Major W. D. Smith from York to Portsmouth.

Lieut. H. D. Lewis from Aldershot to Woolwich.

Lieut. H. Stephenson from Aldershot to Ipswich.

## Tuberculosis in Cows.

At the annual meeting of the Wharfedale and District Chamber of Agriculture, held at Otley on 24th ult., a long discussion took place on the Milk and Dairies Bill, Mr. A. Gentle, an Otley veterinary surgeon, asserting that more than half the cows now alive, and especially those above two years of age, were suffering more or less from tuberculosis. He strongly advised the use of the tuberculin test and the destruction of "wasters."

## CORRESPONDENCE.

VETERINARY INSPECTORS AND THE  
TUBERCULOSIS ORDER.

Sir,

In support of the remarks of Mr. George King in this week's *Record*, may I make, through your columns, a further appeal to County veterinary inspectors to carefully consider, both in the public interests and their own, what the effect is likely to be of working the veterinary provisions of the Tuberculosis Order by local and individual, as opposed to well considered, combined, and uniform action on the part of those upon whom the work will fall.

So far, the response to the invitation extended to all veterinary inspectors to come into line with those of Northants has been somewhat meagre, but I have received letters from inspectors in four counties heartily approving any well considered scheme of co-operation.

One or two have written to say that they have not even seen a copy of the Order; if this is anything but exceptional it may well account for any apathy which is being shown, for I cannot conceive that anyone acquainted with the provisions of the Order can come to any other conclusion than that it throws on the veterinary profession probably the greatest public responsibility which it has ever been called upon to undertake.

Let me point out that it is not simply, or even chiefly, a question of what fees shall be considered reasonable for work in connection with the Order, that not unimportant matter will, of course, receive proper consideration, but the prime reason for co-operation lies in the fact that by this means alone can we hope to perform our duties with credit to ourselves and satisfaction to the community. A very large sum of public money is to be expended annually as compensation for cattle slaughtered as affected with a disease which we know affects, to a greater or lesser degree, perhaps 50 per cent. of the dairy stock of the country. It is not intended, however, that all dairy stock affected with tuberculosis is to come within the scope of the Order—in other words one cannot walk into a dairy, test the animals with tuberculin, slaughter the re-actors, pay the compensation, and be done with the job. The Order makes a distinction as to the animals to be dealt with, and casts a heavy responsibility on those called upon to decide as to what animals do, or do not, come within its purview.

The question to my mind is this—Are we going to muddle through the business by methods which will be uniform in no two districts, or shall we, by combination and the adoption of a uniform plan of campaign, attempt to carry out our duties in a manner which will show that the confidence reposed in us by the State has not been misplaced?

The phases of tuberculosis scheduled in the Order are:—

1. Tubercular mastitis.
2. Cows giving tuberculous milk.
3. Tuberculosis with emaciation.

With regard to the first of these, I have had a fairly large experience in the examination of dairy cows with especial regard to the condition of the udders, and I have no hesitation in saying that the diagnosis of tubercular mastitis is often attended with very considerable difficulty. A single bacteriological examination of milk from the suspected gland is generally useless, and even repeated examinations may fail to reveal tubercle bacilli in the milk from a tubercular udder. Similarly, a painless hardness, or indurated lump in the gland, may be, and often is, due to causes other than tubercular infection.

(2) *Cows giving tuberculous milk.* Herein, too, is food for reflection and discussion. Who is to decide whether a cow unaffected with udder mischief is giving tuberculous milk? Presumably the veterinary inspector! How many veterinary inspectors, or veterinary practitioners, possess the technical knowledge necessary for the detection of tubercle bacilli in the milk or other discharges? And failing them, to whom is the examination of suspected samples

to be entrusted? How is the examination to be paid for? And how are the County authorities to know of the difficulties and of the need for this laboratory help unless the matter is laid plainly before them.

Of course it is possible that additional instructions will be issued to local bodies by the Central Authority giving guidance on all these points; all we know in the meantime is that the Order is to come into effect in six weeks, and that local authorities have been instructed to make their own arrangements for its proper working.

Do not let us lose sight of the fact, too, that all indurated conditions and chronic diseases of the udder will be notifiable, exactly as is now the case with the present scheduled contagious diseases, which means that an inspector will be very largely occupied in attending to these cases which will take precedence of all less urgent work. Further, the work will be very different to that appertaining to any of the existing scheduled diseases; in the case of these, one visits the suspected animal, makes his diagnosis and sends in a report, Yes or No, within a few hours. Not so with the majority of cases of suspected tubercle. The animal will be visited by the inspector who, in most cases, will be unable or unwilling (in view of the facts which will be revealed at the post-mortem) to make a diagnosis offhand; he will take samples of milk or other material, and will ask the permission of the owner to apply the tuberculin test (which must be obtained in writing, otherwise the test may not be made), this being forthcoming, he will arrange to carry out the test, with its attendant visits—two, or three, or four, or five; the animal reacts, and its value is agreed upon; slaughter takes place, a post-mortem is made, and the extent of the disease ascertained. How can the county authorities be expected to know that all this business will often be necessary, and how can they fix a scale of fees commensurate with the work unless we lay these practical details plainly before them?

The third phase of the disease, *Tuberculosis with emaciation*, may easily mean a pit-fall for the unwary. It is unnecessary to point out that there are diseases associated with emaciation other than Tubercle, which in their clinical aspects are not always easy to differentiate therefrom. Of course we have tuberculin to help us, but the mind of the layman, at any rate, has recently received a rude shock in having been told that a positive or negative reaction to tuberculin depends upon the origin of the tuberculin, in consequence of which we may expect occasional difficulty in obtaining consent for the test to be employed.

I have already trespassed at too great a length on the hospitality of your columns, but before closing I should like to say that the coming of the Tuberculosis Order is not the only reason why veterinary inspectors should band themselves together with a view both to the creation of a greater public confidence in their opinions, and in many cases to the adoption of a more reasonable scale of remuneration.

Everyone of the present scheduled diseases presents difficulties of diagnosis: all these difficulties might be lessened if, through an Association of Inspectors, we meet occasionally, and collectively tapped the sources of knowledge as to up-to-date methods and technique in the diagnosis of these special diseases.

As soon as the necessary arrangements can be made I hope to call a meeting in London of Veterinary Inspectors to discuss the advisability of forming an Association of Veterinary Inspectors on the lines advocated by Mr. King, at which I hope the importance of the matters at issue will ensure a satisfactory attendance.—Faithfully yours,

TREVOR F. SPENCER, M.R.C.V.S.

Kettering, March 18th.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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VOL. XXV.

Mr. W. J. T. Bower, M.R.C.V.S.

The death last week of Mr. Wm. Bower, of East Rudham, has removed one of the most prominent of veterinary practitioners. To those who knew him intimately, and they are numerous, his loss will cause a poignant personal grief, for Bower possessed an attractive nature and a loveable character. To a handsome appearance was added a genial manner and an honest and upright heart. He was a sportsman and a country gentleman.

In 1865 Bower took his Diploma in Edinburgh after studying under John Gamgee—a privilege he always appreciated, for in those days there was no veterinary teacher of equal eminence. From College he returned to his native county and commenced practice. For the last 30 years he has been veterinary surgeon by appointment to the Royal Household at Sandringham, where his opinion and advice were much valued. King Edward would accompany Mr. Bower round his stables and kennels talking and questioning without reserve. Queen Alexandra also extended to Mr. Bower her patronage and friendship. Quite recently the late King's favourite dog, Caesar, took ill and Mr. Bower was summoned. On this occasion the Queen personally presented him with a beautiful diamond pin and a large signed portrait of herself and the late King Edward as they went to the opening of Parliament in 1910. A letter from Mr. Bower which we have seen says "the kind remarks she made in presenting them, in my weak state quite overcame me."

Mr. Bower was an all round horseman and horse-master. He rode to hounds regularly until his weight and his work interfered with his pastime. He always kept a good hunter, and was glad of the chance to mount a friend. He was widely connected in the purchase of horses, and travelled all over the country examining high priced animals for his clients. As judge and veterinary inspector his services were much in requisition at horse shows.

Mr. Bower was a member of the Eastern Counties V.M.S., and took great interest in its proceedings. At one time he was President of the Society. He was also an active member of the National Veterinary Association, of which he was President on the occasion of the Association's first visit to Yarmouth. It may be interesting to note that at that time the "National" was getting decidedly stale, and it was anticipated that failure was possible. Mr. Bower added to the scientific work of the meeting, a social function to which ladies were invited. The meeting was a great success, the Association was revived, and has progressed ever since.

Mr. Bower was also a member of the Council of

the R.C.V.S. Unfortunately, about this time his apparently robust health failed and he resigned. Had he remained there is no doubt he would have reached the President's chair. Since September last Mr. Bower has been an invalid, but in the middle of February he was so much improved that hopes of recovery were entertained, and he himself thought of coming to London for a few days.

The funeral, last Saturday, was attended by hundreds. King George sent a message of sympathy to Miss Bower, and was represented at the funeral, which took place at East Rudham.

## THE INTERNATIONAL VETERINARY CONGRESS, 1914.

We gather from our French contemporary *La Semaine Vétérinaire* that the Permanent Committee of the International Veterinary Congress has now fixed the list of subjects for discussion at next year's meetings in London. Only two subjects are to be discussed by the whole Congress sitting as a general assembly, and these are Foot-and-mouth Disease and Tuberculosis. The remaining subjects are allotted to various sections as follows.

Section I. *Veterinary Science in its Relation to Public Health*—1. Alimentary Intoxications—Pathogeny and Prophylaxis. 2. General principles of the inspection of the flesh and viscera of tuberculous animals with the object of determining their fitness for human food. 3. Public control of the production, distribution, and sale of milk from the public health point of view. 4. Disinfection of trucks.

Section II. *Pathology and Bacteriology*—1. John's Disease. 2. The European bovine piroplasmoses, with special regard to their etiology. 3. The relations of the so-called types of tubercle bacilli. 4. Ultra-microscopic viruses. 5. Canine distemper—etiology and vaccination.

Section III. *Epidemiology*—1. Anthrax. 2. Epizootic abortion. 3. Swine fever. 4. Glanders.

Section IV. *Veterinary Medicine and Surgery*—1. Local and general anaesthesia. 2. Roaring in horses. 3. The employment of medicaments in the treatment of diseases caused by nematodes. 4. Sarcoptic mange in the horse.

Section V. *Tropical diseases*—1. The piroplasmoses (excluding red-water). 2. Methods of procedure against the ticks regarded as agents in the transmission of disease. 3. Animal trypanosomiasis.

This is certainly a very strong programme. All the subjects are important; and a great many of them are just those in which a comparison of views between the chief veterinary authorities of different countries will be of most value to the world.



The essayists for the various subjects are not yet chosen; but they will be selected from the specialists of all nations, and we may rest assured that every subject will be efficiently handled. The custom at these Congresses is to have several papers upon each subject, in order to obtain the views and experience of different countries. The advantages of this are obvious.

The list of subjects should quicken our interest in the Congress. Some of our own members, of course, will be asked to contribute papers. All of us can contribute a little to the funds of the Congress, and adequate financial backing is all that is required to assure its success.

#### TRAUMATIC OMARTHRTIS.

Wounding of the shoulder joint would seem to be an uncommon condition, this being accounted for by its sheltered position. Perforation of the capsular ligament is rare because of the close relation of the numerous tendons which pass from the scapula to the humerus.

An account of a case in which this accident occurred may be of some interest.

*History.* The animal, a young Artillery wheeler, of placid temperament, was doing work in the riding school. During one of the halts he was kicked by his neighbour. He was at once removed and brought to hospital.

*Symptoms.* The horse was not in the least lame. There was a transverse wound  $\frac{3}{4}$  in. long in the neighbourhood of the shoulder joint, which was bleeding slightly. On casual examination the wound appeared merely a skin one, but by moving the limb, one brought into view a second opening, clearly a penetration into the joint cavity. Palpation revealed a collapsed condition of the ligament. Air is enabled to enter the joint cavity in consequence of penetrating traumatic injury, on account of the negative pressure in the cavity.

The removal of resistance to atmospheric pressure permits the separation of the articular surfaces of the bones forming the joint. In this way one's fingers seem to enter a deep depression, on palpation.

*Treatment.* This consisted in shaving the area, taking care to plug the wound with wool to prevent the entrance of hair and filth. The cavity was then washed out with sterilised carbolic water (1—40) several times. This was followed by repeated injections of sterilised normal saline solution. By this time all bleeding had ceased, and the wound was closed with one boiled silk suture. The animal was put on the "short rack."

The following morning there was a considerable œdematous swelling below the joint, the limb was extended as far as possible backwards, with the foot firmly planted on the ground. Movement was painful, but the animal was bright, feeding well, and had no temperature. It was decided to place the horse in slings, which was accordingly done, the breast strap being replaced by a coil of rope fitted as a collar and covered with a bandage. This was

attached above and below to the slings. In the following days the œdema disappeared, and there was no fever. The suture was removed on the eighth day.

In fourteen days atrophy of the pectoral, biceps, supra-, infra-spinatus muscles was noticeable. The horse was then allowed out of slings during the day-time.

On the twentieth day movement was improved so far as to permit of his being gently exercised. The joint was massaged daily, kneading of the muscles was practised in an attempt to prevent the progress of the atrophy.

The horse was walking perfectly sound on the twenty-seventh day, and in the next ten days became perfectly sound at all paces. He is now being conditioned for duty.

J. R. HODGKINS, Capt. A.V.C.

Dundalk.

#### BI-CENTENARY OF THE STAMPING-OUT METHOD OF CONTAGIOUS DISEASES OF ANIMALS.

By HENRY GRAY, M.R.C.V.S.

Just two hundred years have elapsed since Giovanni Lancisi, physician to Pope Clement XI. recommended the Italian Government to poleaxe all cattle suffering from rinderpest then (1713) raging in Italy.

From this distinguished man's writings (1713-1714) and those of his compatriot Ramazzini (1711) one gathers, when compared with our present knowledge of the disease, very little of practical value has been really advanced since that period.

It was, however, left to our countryman, Thomas Bates, surgeon to King George I., to put this practical and radical method into force in order to eradicate totally the disease when raging in England in 1714. The object sought for by this method was accomplished in a few months.

Undoubtedly the experience then gained was totally ignored or tardily put into practice by our Government, when the disease was introduced again at various periods during the Eighteenth Century and again in 1865, when John Gamgee, more enlightened than any of his contemporaries, was not listened to until our herds had been practically decimated.

However, next year, when the International Veterinary Congress will meet in London for the first time, and to celebrate its jubilee in honour of its hitherto unrewarded founder, John Gamgee, will be the bi-centenary of the adoption of the method by Thomas Bates now in general vogue in the United Kingdom and some other countries, and to a lesser degree, in consequence of geographical considerations, in certain other countries.

It is to be hoped these three great men—Lancisi, Bates, Gamgee—will have some permanent homage paid to their memories, and to the distinguished services they bestowed on the world.



## ABSTRACTS FROM FOREIGN JOURNALS.

## THE SPAYING OF MARES BY THE INGUINAL ROUTE.

Albert Vinsot, of Chartres, points out (*Société centrale de Paris*) the disadvantages of spaying the mare by the customary method, both from the point of view of antiseptics of the genital passages, which is impossible to realise, and on account of the danger from the resistance of the animal (which is generally very violent) when maintained in the standing position. He then describes the following method of operation. The mare is placed in the "travail-bascule" in the recumbent position, and the hind limbs are fixed as for the castration of a cryptorchid. Under strict antiseptic precautions the skin and the underlying tissues of the inguinal region are incised a little below the inguinal ring. The hand, disposed like a cone, is introduced, breaks down the connective tissue fibres, and penetrates the inguinal canal with little more difficulty than in the case of the male animal, as the space is more restricted in the female.

The peritoneum is reached and perforated, and the ovary is sought for. This is found in the sub-lumbar region, a little behind the kidney. It is first secured by a string of sterilised silk terminating in a running knot; and by this means it is drawn to the peritoneal opening. Ablation is performed with a long ecraseur, and is facilitated by the previous fixation of the ovary with the string.

The mare is then turned over, and the operation is repeated upon the other side. A simple silk suture closes each cutaneous incision, and the after-treatment is simple.—(*Annales de Méd. Vét.*)

(Vinsot uses his "travail-bascule," but it would appear to be quite possible to perform this operation by Miles' casting ropes, as the cryptorchid operation is usually performed here.—*Transl.*)

## ENCEPHALITIS AS A COMPLICATION OF STRANGLES.

Bouet remarks (*Bulletin de la Société de Pathologie Comparée*) that equine encephalitis assumes a curious evolutive process. It is generally a complication of a clinically discreet form of strangles, and it may even constitute the only objective manifestation of that disease, as in the following case.

A six-year-old horse, without any previous history of strangles, suddenly showed prostration, with intense fever (a little over 105° F.) at the same time. The two following days the animal remained in a somnolent condition, the great natural functions being normal. On the fourth day a crisis of excitation was seen. Set at liberty, the horse turned a semi-circle to the left, struck the end of his muzzle against a wall, pushed against the wall with his head until the neck became twisted, and then collapsed upon the left side. This was really the commencement of the death-agony, which was marked by numerous periods of convulsions.

The post-mortem examination was most interesting, for all the lesions were contained within the cranium. The left hemisphere, in its parieto-

temporal lobe, showed an abscess without any encysting envelope, but with walls burrowing irregularly into the white cerebral substance. This abscess contained a dirty-white pap—a mixture of pus and of cerebral material. The encephalitis affected the roof of the lateral ventricle. The right cerebral hemisphere also contained an encephalitic centre in the occipital lobe.

Under the microscope, congestive and inflammatory lesions, both of the cerebral cortex and the white substance, were found. Moreover, in sections stained by Gram's method, streptococci in pure culture were found localised in the perivascular sheaths.

It may be deduced from this observation that the cerebral abscesses were of embolic origin. Bouet regards the case as one of strangles, considering the high temperature on the first day as a justification of this hypothesis. The primary disease had passed unperceived, but a streptococcal infection of the blood had taken place, culminating in the cerebral abscesses.—(*Annales de Méd. Vét.*)

(Strangles seems very probable indeed in this case, but hardly demonstrated conclusively.—*Transl.*)

W. R. C.

"In recent years Oklahoma has been a dumping ground for scrub stallions and quack veterinarians. Owing to the laxity of the laws in that State there has been no way to prevent this unfortunate condition. An effort will be made by Oklahoma horsemen and veterinarians to secure the passage of a stallion registration law, patterned after the ones which have been so successful in checking the use of unsound and badly bred stallions in the North. The State Veterinary Medical Association will also push a bill for the protection of the qualified veterinarian. These measures deserve support because they look toward improvement in horse breeding, and a higher grade of professional assistance for stockmen."—*The Breeders Gazette*, ex. *Amer. Vet. Rev.*

## SOUTH DURHAM AND NORTH YORKSHIRE VETERINARY MEDICAL ASSOCIATION.

A meeting was held in the Imperial Hotel, Darlington, on Friday, March 7th, Mr. W. Awde, Stockton-on-Tees, President, in the chair. There were also present:—Messrs. G. R. Dudgeon, Sunderland; J. M. Walker, West Hartlepool; E. H. Pratt, Northallerton; G. E. Nash, Richmond; J. Wilson, Yarm; H. Peele, Durham; P. Snaith and A. C. Forbes, Bishop Auckland; C. G. Hill and J. H. Taylor, Darlington.

Visitors: Messrs. A. A. Walker, Harrogate; and F. H. Sanderson, Darlington.

It was proposed by Mr. Peele, seconded by Mr. Dudgeon, and carried unanimously, that the minutes of the last meeting as they had appeared in *The Veterinary Record* be taken as read and confirmed.

## CORRESPONDENCE.

Apologies regretting their inability to be present were received from Messrs. W. N. Dobbing, W. H. Blackburn, and P. B. Riley.

An invitation was received from the Royal Sanitary Institute to attend the Congress of the Institute at Exeter commencing on July 7th.

It was decided to leave the matter over until the next meeting in June, but it was generally thought that the place of meeting was too far away to send a delegate.

A letter from Sir Stewart Stockman reminding the Association that money was required by the treasurer, Mr. Garnett, towards the funds of the Tenth International Veterinary Congress to be held in London in 1914, and asking for support.

From Mr. A. W. Noel Pillers, the Hon. Sec. of the Northern Branch of the National Veterinary Association, enclosing scale of fees the Council of that Association recommended as a fair and reasonable basis for negotiations with County Councils and other local authorities, under the Contagious Diseases (Animals) Acts, where and when such may be locally considered advisable.

From Mr. W. Shipley reminding the Association that their annual subscription of £2 2s. was due on Jan. 1st last.

It was proposed by Mr. Hill, seconded by Mr. Dudgeon, and carried, that this annual subscription be sent.

From Prof. Wooldridge, informing the Association that the affiliation fee of 1/- per member was due to the National Veterinary Association.

It was proposed by Mr. Snaith, seconded by Mr. Hill, and carried, that the affiliation fee be sent.

Letters from Mr. Theo. C. Toope with reference to the scale of fees suggested by the National Veterinary Association which were discussed by a special meeting of this Association held on Dec. 20th last. The Association desired a little information with reference to these fees, and Mr. Toope had kindly written giving all the information asked for.

Mr. Toope had also sent copies of the adopted scale of fees agreed upon at a meeting of the National Veterinary Association held on January 8th last, and also booklets of scale of fees paid by County Councils and local authorities.

The SECRETARY stated that he had sent a copy of each to each member of the Association.

Mr. F. H. SANDERSON, M.R.C.V.S., Darlington, was nominated a member of the Association on the proposition of the Secretary, seconded by Mr. Dudgeon.

*Sub-committee to consider, with the Vet. Inspectors of Durham County and of the North Riding of Yorkshire, the fees paid by the County Councils.*

In accordance with the resolutions passed at the last meeting of the Association held on December 6th, 1912, a special meeting was held in the Imperial Hotel, Darlington, on December 20th, 1912, Mr. W. Awde, President, in the chair. There were also present Messrs. G. R. Dudgeon, T. R. Jarvie, A. C. Forbes, P. Snaith, P. B. Riley, K. J. Urquhart, C. J. Hill and J. H. Taylor.

Apologies regretting their inability to attend were received from Messrs. J. Wilson, and G. B. Holden.

The amended scale of fees and allowances payable to veterinary inspectors suggested by the sub-committee of the N.V.A., and which was to be presented to the Council of that Association for their approval at a meeting to be held on January 8th, 1913, was presented for discussion.

It was proposed by Mr. Dudgeon, seconded by Mr. Urquhart, and carried that each fee and allowance should be considered separately.

A little uncertainty seemed to exist as to the fees one would receive in respect of each ordinary visit, namely, whether one would receive his fee of 10/6 in addition to mileage, and after much discussion it was proposed by Mr. Snaith, seconded by Mr. Dudgeon, and carried, that each visit be charged for in addition to mileage.

After discussing the fees an inspector would receive for attendance at markets, fairs, and public sales, it was

proposed by Mr. Dudgeon, seconded by Mr. Hill, and carried—That inspectors for cities and boroughs should receive the same fees.

It was proposed by Mr. Awde, seconded by Mr. Jarvie, and carried—That the fees paid in respect of sheep scab should be the same as those for attendance at markets, etc.

It was proposed by Mr. Dudgeon, seconded by Mr. Urquhart and carried, that when travelling by rail first class fare be charged.

The remaining fees and allowances as suggested were generally agreed to, and if it were thought necessary another meeting of the Association was to be called, and a vote of thanks to the President brought the meeting to a close.

The Secretary stated that he had written to Mr. Toope, to whom they were much indebted, and he had replied that it was intended that the visit and mileage be both charged for.

The PRESIDENT said that as these Minutes had not appeared in *The Veterinary Record* it would be necessary for somebody to now move that they be adopted and confirmed.

It was proposed by Mr. Dudgeon and seconded by Mr. Hill and carried, that the minutes be now adopted and confirmed.

Mr. DUDGEON said he was glad to see the Chief Veterinary Inspectors for Durham County (Mr. Peele), and for the North Riding of Yorkshire County Councils (Mr. Pratt) present at the meeting, and trusted that with their assistance some good might be done in approaching the two County Councils. He thought that a scale of fees ought now to be decided upon, and that each member ought to abide by that scale, for unless all the Inspectors were unanimous no good would result.

He might say that the scale of fees payable to Inspectors of Durham was arranged so far back as the year 1894, and considering the extra duties and responsibilities now placed upon them, in his opinion these fees were obsolete, and it was high time a revision took place.

Mr. SNAITH thought that perhaps the best way would be to arrange a scale of fees and write to the Executive Committee of the County Councils and state their case. The new Tuberculosis Order (1913) would soon be law, and it was absolutely necessary that some prompt action be taken.

Mr. PEELE said that he had carefully considered what would be best to do, and he had come to the conclusion that as he had to attend the meeting of the Executive Committee every quarter, and write a report, the best plan would be for him to embody in that report a request that the whole matter with respect to fees should be considered, with the object of their revision. It was clear to everybody, he thought, that the fees at present allowed were quite inadequate, and if a small deputation from the Association was appointed to interview the Executive Committee, after he had stated his case to them, he thought from his experience of the Committee that they would meet them fairly. It was necessary, however, that he should have some definite figures to put before them.

Mr. PRATT thought that in the case of his Committee, in addition to him embodying any recommendation in his quarterly report, it would be better to send such recommendation direct to the Clerk of the County Council.

Mr. NASH thought that Mr. Peele's suggestion was a good one, and that they ought to act upon it.

Mr. PEELE said that he had carefully thought the question of fees out, and agreed that those suggested by the N.V.A. ought to be taken as a basis, and he would suggest that the following be the scale they should adopt:—

**Anthrax:** Visit, microscopical examination and reports to Board of Agriculture, County Councils, and Local Authorities, mileage and £1 1 0

**Glanders:** Visit to inspect and report where no post-mortem is necessary, mileage and £1 1 0

Visit and report if post-mortem is necessary, mileage to post-mortem and £1 11 6

**Tuberculosis:** Visit and report in an ordinary case, mileage and £1 1 0

Visit and report if a declared case, and slaughter and post-mortem necessary, mileage to p.m. and £1 11 6

Testing with Tuberculin, one animal £1 1 0

If more than one animal then as suggested by the N.V.A.

Inspection of contact animals in cases of Anthrax and Tuberculosis as suggested by the N.V.A.

The cost of Mallein and Tuberculin to be repaid as suggested by the N.V.A.

**Mange:** Visit and report up to six animals, mileage and £1 1 0

If more than six animals a charge of 2/6 each animal examined.

**Sheep Scab:** Fees as suggested by N.V.A.

In all cases the actual mode of travelling be allowed for; mode to be optional. Allowance 1/- per mile one way. If by rail, 1st class fare.

After these fees had been fully discussed it was generally agreed that they be adopted.

Mr. DUDGEON proposed, seconded by Mr. Snaith, and carried unanimously "that a letter be sent to the Chief Veterinary Inspectors of Durham County and of the North Riding of Yorkshire County Councils requesting them to bring before the Executive Committee of each County Council the inadequate fees at present paid to Veterinary Inspectors, with a request that a revision of these fees be at once considered."

Mr. PEELE thought that if this letter was sent to him it would be all that was necessary, now that he was fully armed with the fees agreed upon. He also urged each member to mention the matter to any member of the Executive Committee he knew, so as to prepare them for what he was going to bring forward.

Mr. PRATT thought that in his case a copy of the letter ought to be sent to the Clerk of his County Council as well as to himself.

It was agreed that this should be done.

The members subsequently had tea together in the hotel.

JAMES H. TAYLOR, Hon. Sec.

#### FORT KEOGH REMOUNT DEPOT.\*

By Veterinarian G. E. GRIFFIN, Third Field Artillery.

The Fort Keogh Remount Depot is located between the Yellowstone and Tongue Rivers in the State of Montana, about three miles west of Miles City.

The reservation is ten miles square, well watered and drained, and its southern half is excellently sheltered from cold northern winds by a chain of tall bluffs. Its pastures abound in the nutritious and bone building "buffalo grass," which as a horse forage has no superior, and in addition to this valuable grass there is present a good supply of "blue stem" and "gramma."

This station has been in operation for about three years, and in that short period, under the able management of Captain H. P. Howard (Cavalry), it has done remarkable work in developing among the horse raisers of the territory tributary thereto an intense interest in the type of animal needed by the service.

From time immemorial the North West has been satisfied with the native "Cayuse" horse, which appears to have filled the needs of the stock raiser. Agricultural pursuits are more and more curtailing the area devoted to stock raising and as a consequence there has been a demand for a heavier type of animal to do the planting and harvesting of crops. To meet this demand, draft stallions of the Percheron, Clyde and Shire breeds were introduced and these animals crossed on the native mares with not altogether pleasing results.

It is true that a heavier type of horse has been produced, but he is devoid of symmetry and of clean, easy action; in fact, as a rule, he is something of a non-descript, heavy of head, short of neck, straight of shoulder, large of joint, wide of breast, small of barrel, weighty of croup, shaggy of leg, flat of hoof, and nasty in disposition, but nevertheless possessing good bone, wind and hardiness.

It must be admitted that the native horses were not much improved by the introduction of the draft sire. The cross was too violent to begin with, for it is a well-known fact that among horse breeders, of whom there are many in the North West, violent blood crosses among horses are repugnant to nature.

It should be understood by the interested reader that these remarks on the draft cross apply to horse raisers, not horse breeders, horse breeding being a profession, horse raising a trade.

While horse conditions were at their worst in the North West, viewed from a purely military standpoint, the Fort Keogh Remount Depot was established, and not a moment too soon either. Had it been established ten years earlier the North West could now be depended upon to creditably horse the army in any emergency.

The first attempts of Captain Howard to furnish the service with mounts from this depot were, to say the least, discouraging. He had little that was even fair to choose from. The horse raisers did not know what the service needed and they were disappointed to discover that the best of the material on hand was barely suitable for army needs, and even this was purchased grudgingly on account of a start having to be made.

The horse raisers were unacquainted with the conformation of desirable military horses; therefore, it was a large part of the duty of the depot to educate and enlighten them along desired lines. This duty was up-hill work, but it has borne fruit and at present many of the ranch owners are breeding with the army in view as a market. For this purpose standard Hackney and Morgan sires have been secured and a few coach and thoroughbred. These sires have been crossed on selected mares, with apparently good results as far as one may judge by the youngsters produced.

The strangest part of the cross with the drafters is that the second or third generation has produced many excellent artillery horses.

In conjunction with the difficulties encountered in procuring suitable military horses in the first two years of the depot's existence, Captain Howard had to contend with the prejudices of the service itself against North West horses with their disfiguring brands and notoriously bad dispositions.

Many of the older mounted officers had been educated in a school of good military equine conformation established by Missouri and Kentucky horses. This well-known conformation has for many years been accepted, subconsciously no doubt, as a standard until now any minus deviation therefrom is looked upon with disapproval, and even scorn. But for the next two years at least we must become reconciled to a minus standard; the trolley car and the automobile have practically supplanted the light type of horse in those states on which the army has been in the habit of depending for its mounts. Even in the state of Missouri the draft animal is taking the place of the desirable combination horse

\* Reprinted from *Journal of the U.S. Cavalry Association*, January, 1913.



so dear to the heart of every true cavalryman, and to such an extent that it is becoming more difficult each year to find a decent representative of the cavalry type of horse.

It has been my own custom to purchase, train and develop a youngster each year. This year I have been unable to find one at a reasonable price, and only two at an exorbitant one. It is not that my standard has become more exacting, but that decent colts are very scarce and expensive even in the famous Platte County, Missouri.

There is considerable after-dinner horse talk now-a-days; some of it sentimental twaddle about the disappearing thoroughbred. The thoroughbred may disappear from the race course, where he was usually a weedy-looking, short distance racing machine on which to foolishly bet money, but he will always remain here with credit to himself so long as decent, healthy men and women ride to hounds and demand speed, spirit, endurance, cleverness, weight and height in their mounts. We do not need the thoroughbred horse in the ranks; as a cavalry horse he is undesirable mostly on account of temperament, conformation, inability to carry heavy weights for long period, and an alarming loss of condition when exposed to the elements and skimped in his rations. He will do to cross with selected dams from which the cavalry conformation must come if it comes at all. Very little has been said of the "saddler" as a sire when breeding for the service is considered, nevertheless I venture the opinion that the true cavalry and light artillery horse will be produced from such a sire on carefully selected dams of good ancestry.

With all its discouragements the Fort Keogh Remount Depot is remarkably well organised and runs as smoothly as a well-oiled machine in good order.

At this depot horses are first gentled by polite man-handling and then trained without the use of spurs and oaths. Cavalry horses are given a course of several months in the saddle, and artillery horses a less time in saddle and draft, before they are considered ready for distribution.

It is believed that the "squeeze gate" may be dispensed with in a year or two when the new crop of desirables with good reliable dispositions begins to arrive.

The cavalry horses now at that station are good. It is true they have not the style and class we have been accustomed to, but they are such an improvement over those of two years ago that our trust in the depot and we believe our faith to be well founded.

The internal economy of this depot was something of an agreeable surprise; here was a small herd of sheep which furnished a carcass of mutton at least once a week; over there was a decent-looking beef herd which supplied the American staff of life; yonder was a graded dairy herd furnishing an abundance of milk, cream and butter, while in a well-sheltered swale was observed a large flock of white leghorns, carefully kept up to standard.

On the lowlands of the Yellowstone River were extensive fields of alfalfa, oats, corn, and some wheat, all of which were used to advantage in the feeding scheme. There was no haphazard farming indulged in at Fort Keogh; everything was done in a manner that indicated intelligent knowledge of the subject. A strict system of accounts is maintained and the profits from sheep, cattle, chickens and crops known exactly.

A special page could be devoted to the system of hog raising employed here. Suffice it to say that the animals composing this herd were first class in every respect and a source of considerable profit to the station. Perhaps it will be thought by some that the farm products are the perquisites of those connected with the station. Such is not the case. All profits are turned into the station fund and used for the running of the machine.

It is believed that this station will be self-supporting in a few years, under management similar to that of the present.

We have it figured out for us at regular intervals that the price of a cavalry horse laid down at final station, under the remount system, is all the way from two hundred and fifteen to three hundred and fifty dollars. When all overhead expenses are considered it is probably high, higher than what the animals would cost under the old system of purchase; but in any new extensive industry, where the original investment is large, the first few thousand articles manufactured would cost enormously if the investment was charged against them. Those who are now crying against cost of production at Remount Depots must eliminate the original investment from their calculations for a few years more at least, until these depots are firmly established and have a decent opportunity to demonstrate their usefulness and economic value to the service.

It might not be amiss at this point to say something about the proper time at which to make requisitions for young horses. All of us know that it has been the custom to call for remounts in the spring; at that season they were expensive and were beginning to shed their winter coats. On arrival at station the dealer's condition melted like snow in the sunshine; the coat dropped out in patches, and often with it the pen or pasture lice that had bred there during the winter. By May these young horses looked like "the devil"; nevertheless, out they went to be trained—save the mark—and hardened for the summer manoeuvres, which killed a goodly number of this class of mount each year.

All remounts should be requisitioned for just after the summer's work. On arrival they should all be placed in one building, under the supervision of a sensible Fort Riley graduate, and worked until the following spring under his direction. About April or May they may be turned over to the units to which they pertain.

*Amer: Vety: Review (Abridged).*

#### Prosecution by the R.C.V.S.

William Headley Fairley, practising as a veterinary surgeon at 3 Magdalene Street, Glastonbury, was summoned on the information of George Oram Webb, veterinary surgeon, of Glastonbury, for an offence against the Veterinary Surgeons' Act of 1881. The offence was that he, not being on the Register of Veterinary Surgeons, and not holding at the time of the passing of the said Act, the veterinary certificate of the Highland and Agricultural Society of Scotland, had unlawfully used the following description: "Prepared by W. Hedley Fairley, Veterinary Infirmary, Glastonbury," thus stating that he was specially qualified to practice veterinary surgery contrary to the 17th Section of the statute.

The prosecution was instituted by the Royal College of Veterinary Surgeons, London. Mr. A. J. Mawer, solicitor, Wells, prosecuted, and Mr. F. Glover, solicitor, Bath, defended.

The hearing was preceded by a long legal argument arising from a preliminary objection set up by Mr. Glover to the form of the summons. Mr. Glover submitted that it was not competent for Mr. Webb to prosecute. The only persons who could prosecute were the Council of the Royal College of Veterinary Surgeons, and no other person could come forward without written authority from the Council to do so.

Mr. Mawer said that was a futile objection. Anybody could give information under this statute or any other statute. He had authority from the Council to prosecute in the case on the information of Mr. Webb, and the information was properly laid.

After further argument the Bench decided that the Council had authorised the prosecution, and that the case should go on.



Mr. Glover : The ground of your decision is that the Council having sanctioned the prosecution, it is open for Mr. Webb to institute proceedings on their behalf?

The Mayor : Yes.

The objection was therefore overruled, and Mr. Mawer proceeded to open the case for the prosecution. He said the proceedings were taken under the Act of 1881, by which it was made an offence for any person other than those holding the Veterinary Certificate of the Highland and Agricultural Society of Scotland, or those on the Register of Veterinary Surgeons set up by Section 3 of the Act, to take or use the title of veterinary surgeon or to use any name title or description implying that they were qualified veterinary practitioners. There were now a number of professions, said Mr. Mawer, some learned, some otherwise, protected by statute from persons without qualifications. These statutes were for the protection of the public, and they were of two classes, one of which prevented unqualified persons from doing certain things which only qualified persons could do, and the other allowed unqualified or unregistered persons to practice their calling, but prohibited them from representing that they were qualified. The public, said Mr. Mawer, were not very sufficiently protected if unqualified persons were allowed to practice, and one would think they would avoid using descriptions which deceive the public into thinking that they are qualified. Defendant had transgressed the law because he had sold to a farmer who went to his business premises and made a purchase. That farmer was Mr. John Burnell, of College Green, East Pennard, who purchased at the defendant's premises a bottle of colic and gripe mixture and a drench for cows, which were given him in bottles labelled "Prepared by W. Hedley Fairley, Veterinary Infirmary, Glastonbury." That was an act contrary to the law.

Mr. Mawer then cited the case of R.C.V.S. v. Robinson, in which a man named Robinson had been prosecuted for describing his premises as a "Veterinary Forge." It had been held by Mr. Justice Hawkins, before whom the case came on appeal, that such a description implied that that the person using it was qualified to give veterinary treatment and that the public might be led into expecting such treatment by its use. The case was sent back to the magistrate who had in the first instance dismissed it, and a conviction was ordered.

Mr. Mawer said he had no wish to reflect on the defendant's capacity and skill, but he submitted that this pernicious and unlawful practice should be stopped in the interests of those who had spent their money and their time in becoming qualified.

Mr. Mawer then called Mr. John Burnell, who said that on January 7th last, he went to defendant's surgery, saw Mr. Fairley there, and purchased a bottle of gripe drink and a cleansing drink for cows. They were labelled as already stated. He paid a shilling for each preparation. Mr. Fairley asked for his name and address, and he gave them to him. He afterwards handed over the articles to Mr. S. A. Webb.

Cross-examined by Mr. Glover : He was asked to get the mixtures by Mr. Webb, but he did not know what for.

Mr. Glover : Do you mean you did not know you were the instrument of trapping?—Yes, sir.

Perhaps you would not like the job if you did?—No, I don't think I should, sir.

Did you see stuck up anywhere anything about veterinary surgery?—I would not swear to it, sir.

Did you notice the labels on the bottle?—Yes, sir.

Were you told about the labels on the bottles and to take care they were there?—No, sir.

You were told to get two bottles, and you did?—Yes, sir.

Did anything occur to suggest that Mr. Fairley was acting as a veterinary surgeon?—No, sir.

Are you related to Mr. Webb?—No, sir.

Are you not related by marriage?—Not on my side, sir.

Did you know Mr. Fairley was not a registered practitioner?—No, sir.

Were you not told by Mr. Webb?—No, sir.

Did you not know these things were to be sent up to London as the result of your mission?—No, sir.

The next witness was Sainsbury Alonzo Webb, of the Nurseries, Northload Street, Glastonbury, son of the informant George Oram Webb, who spoke to receiving the above-named articles from the last witness.

In cross-examination by Mr. Glover, witness said he had requested Burnell to get the articles. He had done so at the request of his father, who was a registered veterinary practitioner.

At this stage a piquant observation of Mr. Glover's caused some laughter in court, whereupon Mr. Mawer protested against the unseemly levity of the spectators, which was prejudicial to the hearing of the case.

The Mayor expressed agreement, and said the Court would be cleared if the merriment continued.

Mr. Glover (continuing) : Is it a fact that your father has a great animus against Mr. Fairley?—No, sir, not at all.

Is not your father a little upset because he has a rattling good practice?—I don't know that he has a good practice.

What is the reason for this summons?—It started with the Royal College of Veterinary Surgeons.

Was it not because your father had sent these things up?—I could not say that he has done so.

Were they not purchased for the purpose of being sent up?—Yes.

Further pressed as to Mr. Fairley's practice, witness said he did not know his practice was a good one. Mr. Mawer thereupon said the question was not material, as they admitted that Mr. Fairley had a very good practice.

#### DEFENCE.

Mr. Glover submitted in the first instance that he had no case to answer. He said, dealing with the transaction as it stood, that there was no misrepresentation, deceit, or fraud. It could not be pretended that Mr. Burnell went there thinking that it was a veterinary infirmary. He was sent there by Mr. Webb to purchase these bottles, and he did so. There was no suggestion of fraud on Mr. Burnell, no other evidence had been brought forward, and he therefore asked the bench to dismiss the case.

A long argument ensued upon this point. Mr. Mawer contended that it was not a question of whether Mr. Burnell had been deceived or not, but whether there was an offence against an Act of Parliament.

The Mayor said the Bench had to decide whether there was an infringement of an Act of Parliament by using the title of Veterinary Infirmary.

Mr. Glover : You suggest that, regardless of whether Mr. Burnell was deceived or not?

The Mayor : Yes.

Mr. Glover went on to argue that the description of a place such as they had in this case was not an offence that could be alleged under Section 17 of the Act. To describe his place as a Veterinary Infirmary did not imply that a man took to himself the title of veterinary surgeon. In fact, there was no witness to say that Mr. Fairley had done so. Therefore he submitted that the case failed. Section 17 referred to the personal qualifications of the man, and this description applied to the place. It had not been used in the description to say he was qualified, and they could not imply it. If necessary, Mr. Glover went on, Mr. Fairley would go into the

box and say he had never told anybody he was a veterinary surgeon. He would say that it was common knowledge that he was not registered. That being so, away went all the suggestions that he had used those innocent labels for the purpose of misrepresentation or deceit.

Sundry arguments followed between learned advocates as to the validity of the decision in *R.C.V.S. v. Robinson*, turning on certain observations thereon by Justices Neville and Kennedy. The Magistrates' Clerk (Mr. Chubb) finally said it was his duty to advise the Bench that they could not ignore a decided case. The decision still stood that the use of the title "Veterinary Forge" implied that the owner of the forge represented himself to be a veterinary practitioner. The Bench would therefore decide on the use of the labels.

Mr. Glover then said he would call a number of witnesses who would show that Mr. Fairley, far from misrepresenting himself, did exactly the reverse, as he had told them that he was not registered.

Mr. Chubb: The Act does not say anything about deceit. It is a matter of description.

The Bench having decided that there was a case to answer, Mr. Glover said he would put Mr. Fairley into the box and afterwards call witnesses as to character.

Defendant, W. Hedley Fairley, then gave evidence on oath, saying that the labels he used referred to his place of business. He had never represented himself as a veterinary surgeon, but he had told hundreds of people he was not.

Mr. Chubb: The one witness who bought the bottles was not told that he was not a veterinary surgeon.

Cross-examined by Mr. Mawer, witness said he had frequently told customers that he was not a veterinary surgeon.

Mr. Mawer: What virtue is there in the word veterinary?—It describes my premises.

Why do you call it veterinary? Why not call it infirmary for horses or cows?—That would do just as well.

Witness further said he had been using the labels for six years. He had now discontinued them, but did not think he was wrong in using them.

Mr. Glover then intimated his wish to call witnesses as to character.

Mr. Chubb: Surely character is not at stake.

Mr. Glover: The offence alleged is that he took and used certain things for the purpose of deceiving. I am going to call witnesses to show that he did not.

Mr. Chubb: He had used on his labels the words "Veterinary Infirmary," thereby implying that he was a veterinary.

Mr. Glover insisted on calling his witnesses, and the following gentlemen accordingly went into the box: Messrs. F. J. Evans, head bailiff, Butleigh Court; G. L. H. Porter, Lockhill; W. White, Compton Dundon; James Burrough, Butleigh; T. Swanton, Norwood Park Farm, Glastonbury; Theodore Bond, Wick Farm, Glastonbury; T. Padfield, South Town Farm, West Pennard; W. Killen, Lower Rock Farm, Butleigh. All gave similar evidence, namely, that the defendant had never told them that he was registered, and that they knew he was not. All paid tribute to his skill and ability.

Mr. Mawer did not admit the relevance of the evidence, and did not cross-examine. This completed the case.

#### DECISION.

The Mayor, after a short consultation with his colleague, gave the decision of the Court. He said they must be guided by the use of the labels. The question of Mr. Fairley's character and ability did not, in the mind of the Bench, come into the case. They were not

there to judge character and ability, which in this case they did not doubt. It was a question of whether or not the description on the label was calculated—he did not say it was purposely so used—but whether it was calculated to mislead the public. In view of the judgment in *R.C.V.S. v. Robinson* it was impossible for the Bench to avoid the conclusion that that description ought not to appear on the label. The Bench therefore felt bound to find Mr. Fairley guilty of the offence. It was a technical offence, but it was an offence against an Act of Parliament. The Act existed for the protection of the public, and they were bound to see that it was carried out. They would therefore have to impose a fine. The maximum penalty was £20 and costs, but they would only impose the nominal fine of £1 and costs.

Mr. Glover said that in order to bring the matter to a head, and to decide the application of *R.C.V.S. v. Robinson*, he asked their worships to state a case for appeal.

The Bench acceded to this request. Mr. Mawer asked that the Bench should fix a sum as the costs of the prosecution. The Magistrates fixed the costs at three guineas.—*The Central Somerset Gazette*.

#### REVIEW.

THE PRINCIPLES OF STOCK-BREEDING. By JAMES WILSON, M.A., B.Sc. Professor of Agriculture in the Royal College of Science for Ireland, Dublin. Demy 8vo. Pp. 146, including index. Cloth lettered. Price 5/- net (Vinton & Company, Ltd., 8, Bream's Buildings, Chancery Lane, London, E.C.).

In his preface the author remarks that this small book is "the first to deal with the problem of stock-breeding in the light of the Mendelian discovery," and adds that it has been published at this comparatively early stage in the application of Mendelism to stock-breeding in order to stimulate discussion and research. It should succeed in its aim, for it is an excellent introductory treatise upon its very difficult and complex subject.

The book commences with an exposition of the old theories of breeding, the exceptions observed to the previously accepted rules of heredity, the explanations formerly given of those exceptions, and those afforded by the Mendelian theory. The Mendelian theory itself is explained carefully and lucidly, and a commendable attempt has been made to simplify its complexities as far as possible. The author has deliberately "avoided the more remote phases of Mendelian discussion," and has also refrained from using many technical Mendelian words, substituting other more familiar ones. The result is that the book, while necessarily by no means easy reading in some parts, provides about as clear and comprehensive a summary of the essentials of Mendelian doctrine as could be desired.

The later portion of the work consists of an application of the Mendelian theory to stock-breeding (special attention being given to breeding with a view to the milk and butter yield) and a consideration of the future possibilities which Mendelian teaching suggests to the breeder. Here the author takes an exceedingly sane and level-headed view, and, while doing full justice to the ultimate possibilities of Mendelian work in practical breeding, he does not minimise the great difficulties of the task. Taking the book as a whole it forms a really excellent introduction to a subject which, in its practical application to the farm animals, is still only in its inceptive stage; and, as such, it may be commended to veterinarians and agriculturists alike.

W. R. C.

When nothing but untrained material exists it is impossible, and for the first twelve months of the war we were, with the exception of the Indian Hospitals, teaching, training and organising, losing trained men and beginning over again with the raw material, until finally some semblance of an organised structure resulted.

We have not hesitated to point out our own weakness in this matter, and shall do so in greater detail presently, for the facts must be looked at squarely in the face if we are to meet some of the real reproaches levelled at us, but beneath all our weakness lies the substratum of the entire absence of any War Office policy for dealing with the sick other than that of leaving them to encumber the mounted forces in the Field, or of placing them in Remount Depôts under another branch of the Service, and under combatant authority. In this way no feeling of responsibility had ever been given the Veterinary Service, and without individual responsibility the best of schemes will be wrecked. If, for instance, a man has been spoon-fed for twenty years of his service, and never allowed the responsibility of acting on his own authority, he cannot at 40 be expected to blossom suddenly into a self-contained, responsible person, capable of taking the initiative. He is always waiting for authority, for permission from above, permission which in war may not arrive until the crisis has passed, and further action is rendered useless. This has been evident in some of our hospitals even when conducted by regular officers, but there have been many bright exceptions with the younger men, who not having lived long enough under the deadening influence of an absence of responsibility, rose to the occasion when war occurred, and with it their opportunity. And in this matter it must not be supposed that the veterinary service was the only one weighed down by an absence of direct responsibility. This army system extended from the highest to the lowest ranks; individuality was not required, and the man who possessed it was a nuisance—or worse. It dominated our Cavalry for a hundred years, so that a man who had never been permitted to handle a squadron without being dry-nursed, when promoted to command his regiment was frequently unable to rise above the level of a troop leader, through want of experience and responsibility, which, coming too late, he was unable to acquire. The Infantry realised the danger earlier than the Cavalry, and in both branches the matter is now history, though not very ancient. In the Artillery only was responsibility placed on a young officer from the day he joined his first battery. He was trained as a young naval officer is trained, to think for himself and act on his own initiative, and so sound was the system that mistakes, though convincingly and forcibly brought home, were condoned in order to avoid the possibility of a reaction to the deadening condition of a fear of responsibility. The fruit which such a system bore in war was the admiration of all. Whoever heard of the Artillery doing badly? In what branch of the service are

such devoted horse-masters to be found? When batteries were broken up in the late war, and guns in action commanded by Lieutenants, they were as safe and effective tactically as if under a senior officer, and all this resulted from the splendid regimental system peculiar to the Artillery, of undivided responsibility and encouraged initiative.

When it is borne in mind that until a few years ago a veterinary officer had no power to give an order outside the sick box, and had to appeal for supporting authority for any change he desired to make in the men for whose training he was responsible, it will readily be understood why "Regulations for Field Service" placed him and what should have been his hospital, subordinate to some other authority, and robbed him of all individuality. The system is now dead, but the results of it were seen over and over again during the war, and when from time to time regular officers failed to rise to the occasion, it must never be forgotten that the conditions of their training were responsible for paralyzing initiative and emasculating energy and zeal.

It would even appear that this object was aimed at by those who drew up the Field Army Establishments of 1892, and deliberately placed a Lieut.-Colonel of the Veterinary Service under a Major of the combatant forces! Rank in an Army, as we have pointed out elsewhere, is everything; without it an officer has neither status nor authority. It is a law that a senior cannot serve under a junior, excepting in those rare cases where he does so at his own request. By placing a departmental Lieut.-Colonel under the orders of a Major, the subordination of the Veterinary Service was secured in anticipation, and the flames of discord and want of co-operation—the two sins of warfare which can never be condoned—were potentially lighted. The moment a man is robbed of his self-respect he is a changed individual.

For the purpose of illustrating the difficulties and the class of work the hospitals were called upon to perform during 1900 in South Africa, we shall select three for examination out of the twelve at that time in operation, exclusive of those connected with remount depôts.

The Pretoria Hospital, last spoken of at p. 80, was barely opened before active operations in the Eastern Transvaal began (p. 96.) The overflow of sick from the Middelburg hospital and elsewhere soon began to arrive, though the periodical lull in military operations gave a little breathing time for the disposal of cases. The further the Army got East the greater the amount of sickness and inefficiency, owing to the nature of the country between Belfast and Komati Poort. For example, on 3rd September no less than 600 sick were received in one day belonging to the Colonial Division. Sick were coming in by rail from every occupied point of the Eastern line, it was impossible to find out in many cases where the animals came from, and only a proportion of those despatched reached their destination. Many ought never to have been sent; they were unfit for the journey and died in the trucks or

on arrival. No less than 1407 animals were destroyed in this hospital during the month of September, while only 315 were discharged to duty. At the end of the month there were still 1400 sick under treatment, of which 300 were mules.

In October the sick arrived from points as far east as Machadodorp; during this month the admissions were 600, the total sick in Pretoria at the end of the month being 2400. This, however, does not represent more than a fraction of the sick in the Eastern Transvaal, for at this time the hospital at Middelburg was still busy, while the mass of sick in the Remount Depot at Machadodorp has received notice at p. 103. During October the Remount authorities relieved the congested state of the Pretoria hospital by despatching debilitated animals south to the Cape, and also to Standerton on the Natal line. As a measure of relief this was probably a necessary procedure, but it defeated its own object, for it congested Standerton where no provision existed for their accommodation.

During November, 642 cases were admitted to the Pretoria hospital, 130 were destroyed, and 537 were sent to duty; at the beginning of the month there were 2000 cases under treatment, and of these 900 were sent down country to debility farms, 200 going to Natal. This down country stream must be remembered: we have yet to meet with these animals in Cape Colony. During November a hospital was opened near Johannesburg, and large numbers of sick from the Eastern and Western Transvaal found their way there. It is not proposed to deal with this establishment until the year 1901 is considered. It eventually became the largest and best organised hospital in South Africa.

December was a quiet month in the Pretoria hospital, for at this time the centre of activity had shifted back to the Free State. The admissions were therefore small, but on 21st the number in hospital stood at 1000.

It is interesting to note that No. 2, B Section, F.V.H. had, on the 15th December, been working one year at the front, the total number of admissions during that time being 18,490, of which 15,817 were horses and 2673 mules. Major Forsdyke still remained in charge. The work he had done is well represented by these figures, and gives some idea of the magnitude of the task.

The hastily organised Veterinary hospital at Kroonstad was in due course replaced by a section of a Field Veterinary Hospital from India (No. 4, A Section). Unfortunately, when Lieut. Todd proceeded north (p. 73), Kroonstad, with its immense and responsible charge, passed into the hands of a civil veterinary surgeon who had recently arrived in the country. There is no necessity to again traverse this ground; it has been dealt with in relation to this particular hospital, as well as a general question at page 73. We shall now describe the effect of this legislation, after the hospital had been five weeks under civil administration, with a combatant officer in command of the men.

When Colonel Matthews left Bloemfontein for Pretoria on 29th June he passed through Kroonstad, and on 30th inspected the hospital. So anxious did he feel at what he saw, that he remained there some days in order to direct the management. He arrived at Pretoria about the middle of the month, and mutterings of the condition of the sick at Kroonstad had already reached headquarters, doubtless through the Commandant, who could see that matters were wrong without knowing how to rectify them. The arrival of the P.V.O. in Pretoria liberated Major F. Smith, who, on promotion, passed as S.V.O. Orange Free State, on the line of communication extending from Bloemfontein to the Vaal. He made Kroonstad his headquarters, this being the centre of activity owing to the re-appearance of De Wet. The hospital was his first consideration, and there matters stood as follows:—

The number of patients was not known with accuracy, but was believed to be over 1000. They were huddled together in roughly made enclosures, which were badly congested. There had been no attempt at grouping the patients. Mange cases and others not so affected were mixed up in the overcrowded enclosures. Horses with glanders were freely spread among the non-affected; nothing was known of the class of cases constituting the sick. No wound dressing was done, and the mange cases were also undressed. The shoes were still on the feet of cases with suppurating corns which had found exit at the heel. The food for these animals was thrown on the ground; the erection of temporary mangers, or other contrivances for preventing it from being trodden under foot had never been contemplated. The dung and refuse had been collected and placed five yards from the bank of the stream, into which it would wash with the first rainfall. The water supply was from this stream, which now only consisted of channels a few inches deep and water holes. In one of these lay a dead horse which had previously been unobserved! \* A pump on the bank was connected with the water hole, but the management did not know who put it there, or what its use was, and a combatant officer,

\* This is a convenient opportunity for drawing attention to the vast number of animals taken to water during the war which never had the strength to leave it. It is necessary to explain that all water supply up to this time was from rivers and spruits which were always difficult of access, lying sometimes as much as fifty feet below the general surface of the ground, and under any circumstance difficult of approach, excepting at drifts. At Kroonstad the Valsch River is dammed, and the dam furnishes the water supply for the town. Immediately after the army left the place, it fell to the Medical Officer of Health to remove the carcasses of horses which had collected in this dam, and he caused 700 to be taken out of the river during the month succeeding the surrender of the place: he then failed to keep any further record! The Valsch River rises eighty miles S.E. of Kroonstad; Lindley being situated on its banks. It must not be supposed that all these animals fell into the water at Kroonstad; many no doubt were from I. Hamilton's Force which marched to Lindley a day or two after the occupation of Kroonstad, but the numbers give some little notion of the water pollution which occurred.



presumably familiar with the sight of a field pump, lived on the spot!

By the 1st August, 100 *clinical* cases of glanders had been destroyed, and others occurred almost daily until the middle of September, thus, for August, the total was 122 clinical cases and 3 reactors. By the 13th August it became possible to ascertain how matters stood, and it was then found that the hospital on that date had 1011 cases; during the week 666 horses had been admitted, 150 had been destroyed, 6 had died, and 64 had been sent to duty. Among the sick were 90 cases of lameness, 180 sore backs, 61 skin disease (the worst cases having been destroyed), 395 debility, and 245 which the Remount Department wished to sell.

The condition of the above establishment shows what is possible where incapacity is added to the naturally grave difficulties which beset one strange to the work and to the country. The case is not selected in order to demonstrate what is possible in the way of ignorance and neglect, it is dealt with here as being one of the three largest hospitals in the Free State and Transvaal, and possessing a trained subordinate personnel, but no officer (other than a combatant) to direct the energies of the establishment. As a matter of fact there were three civil veterinary surgeons in the hospital at the time, the senior being in charge.\* Without in any way condoning the neglect or incapacity, the best of men would require help, advice and direction under such novel circumstances. We do not intend to pursue this question of the Kroonstad hospital further; it is a lamentable example of putting the untrained man to do a highly specialised and extremely difficult task. No circumstances appear to us to justify placing a civilian in such a responsible charge, while officers were left attached to Brigades and Divisions.

As an example of the class of case occurring on Service, and the prevalence of disease and injury, the following statistical data taken from this hospital are interesting:—

Week ending 21st Aug., 1900.—Admitted 398, died 1, destroyed 164, to duty 102, sent south 350, remaining 792, consisting of lame 108, sore backs 250, mange 52, exhaustion and debility 382.

Week ending 27th Aug., 1900.—Admitted 604, died 3, destroyed 144, to duty 252, remaining 997, consisting of lame 174, sore backs 540, mange 42, exhaustion and debility 375, wounds 37, various 19.

Week ending 10th Sept., 1900.—Admitted 248, died 2, destroyed 252, remaining 843, consisting of lame 100, sore backs 150, mange 100, exhaustion and debility 400, various 98.

It would be unjust, as previously stated (p. 73), to leave the impression that only hospitals controlled by civil veterinary surgeons furnished evidence of neglect and incapacity. It is, unfortunately, known that some under military administration were by no

means models of system and method. Of two which might be mentioned, there was one in charge of a young officer of the A.V.D. who had two C.V. surgeons as assistants, the whole under the supervision of a senior officer. The hospital at the time spoken of only contained 500 sick, and had a good staff of subordinates for carrying out the work. The cases were grouped, but the grouping was badly done; for example, wound and lame cases were mixed up, so that if the horse had neither a sore back nor a wound he was lame. Most of the horses were without their shoes, these having been purposely removed, and this with no hope of being able to put them on again, for the staff for shoeing a large number of animals did not exist. Accordingly, the cured cases went unshod to the Remount Depot for issue! Among the so-called cases of catarrh were two glandered horses; there was also a mule with farcy. The latter animal did not react to mallein, so was kept on; one of the horses, however, which did react was not destroyed, because no ulcer was present in the nostril; a third case with an ulcerated nostril was not destroyed, because it failed to react. In other words, the use of mallein was not understood, and though caution at this time was necessary, as few had had large experience of this agent, it was here carried to the point of absurdity. Mange cases in this hospital were dressed before being clipped, or before any attempt had been made to remove the scurf and dirt from the coat, though the labour available was one man to every two horses. Sufficient has been said to show that this hospital was a reproach to the A.V.D., instead of being a credit.

There ought, at this time, to have been a senior officer charged with no other duty than the inspection of hospitals, spending his time in passing from one to the other, remaining with those which failed to reach the requisite standard and working them up to an efficient point. But the A.V.D., during the whole period of the war, was short-handed as regards senior officers for administrative purposes. Majors, in addition to their own work, had to perform the duties of Lieut.-Colonels, and the three recognized administrative officers, exclusive of the P.V.O., were totally inadequate for the Orange Free State, Natal and Cape Colony. This condition was still more seriously felt in 1901, when the hospitals increased in number as a consequence of the mounted forces being largely augmented, and the whole work of the campaign was carried on under greater stress and pressure. In no other branch were the officers charged with supervision and the co-ordination of the energies of the executive staff so few in number. The authorities apparently did not sufficiently value the necessity of a good administrative staff, but a year later were compelled to appoint an Inspector of Veterinary Hospitals, and selected for this purpose a layman. We shall go fully into this painful matter in its proper place, and show in what way it came about; our point here is that there was sufficient evidence in 1900 that if hospitals were to be brought up to a uniform stand-

\* It is a pleasure to record that among the three C. V. Surgeons there was one, C.V.S. Buck, (not the senior) who in course of time became a pillar on which the administration never leant in vain. He subsequently had entire charge of a hospital in another part of the country.

ard of excellence an administrative veterinary officer should be specially charged with this duty. One bad hospital, like one black sheep in a family, does more harm than five well-ordered establishments could neutralize, and, as usual, one heard more of their failures than of their successes. Emphatically, the successes outnumbered the failures, but there were more of the latter than would have existed had the question been dealt with on sound lines. Only those officers who had served in India since the introduction of hospitals had had experience of their working, the others had to learn, and to evolve their own system. To some men the initiation of a system is impossible. We do not know what representations, if any, were made to the authorities by Colonel Matthews, with the object of strengthening the weak establishments, but we may feel sure that this, like everything else of the veterinary service, would be relegated to the background, as the war might be over any day! We certainly know this was the case in the matter of buildings for the proper accommodation of the sick, agitation for which began in the middle of 1900, while practically little or nothing was done for another eighteen months, but this question will be dealt with in its proper place.

The following Army Orders, issued in 1900, bear upon the disposal of incurably injured animals, and the salvage or destruction of the abandoned.

An Army Order was published on 2nd Feb., 1900, directing that if horses, mules or oxen are found to be so severely wounded that there is no hope of recovery they are to be destroyed.

On 28th August, 1900, an Army Order directed that when from sickness or injury a Government animal had to be abandoned, it should when possible be left in charge of the inhabitants of the nearest farm, and the latter had to report to the Administrator of the district that he had possession. Commanding Officers were directed to notify the Assistant Inspector of Remounts, Cape Town, the farms where animals belonging to their units had been left.

This plan had been in operation for some months (see p. 57), and was conceived in the truest spirit of economy and humanity. It was defeated by a want of intelligent application, for on 1st Sept., 1900, the Commander-in-Chief drew attention to the many animals abandoned by columns, subsequently picked up by the enemy, which, "after a few days' rest, care and feeding, have become useful to them." It was directed that in future all sick and debilitated animals necessarily abandoned should be destroyed on the spot. Any likely to recover and be able to come on with the column to be handed over to the nearest military post. It would appear that in spite of this order animals continued to be abandoned, for natives were employed to bring them in and were paid by results.

On 9th Nov., 1900, an Army Order was published directing that the payment of natives as stock collectors at so much per head or percentage on the

money value of such stock was to be discontinued, and that when employed on this duty they were to receive a daily rate of pay.

It is convenient to note that shortly after this order, on 7th January, 1901, a "Live Stock Recovery Department" was formed under a Superintendent and Assistant Superintendent; it was charged with the duty of collecting strayed and abandoned animals, forming depôts for their reception and re-issue to Transport or Remounts. This, of course, was the real solution of the difficulty, but we contend that the salvage of animals with forces and columns should have been carried out by the Veterinary Service, with a body of men under their control, charged with the duty of collecting the débris of war, and bringing it along or destroying it if necessary. Such a service is analagous to the search for and conveyance of the wounded made by bearer companies of the Army Medical Service.

#### REMOUNT DEPARTMENT,

1899-1900.

##### PREPARATIONS FOR WAR.

The operations of this department have been submitted to such a rigid enquiry at the hands of the Royal Commission on the War, but more especially by a Court of Enquiry on Army Remounts, that we are in possession of very full information regarding the working of this branch of the service during the period of hostilities. We propose to restrict our statements to those facts which will enable the veterinary aspect of the case to be clearly understood, and to avoid, as far as possible, reproducing those strictures on its administration which are not directly connected with our interests.

The Court of Enquiry was held by order of the Commander-in-Chief; it assembled on 1st March, 1902. In our many references to this report they will be indicated briefly as *C. of E. Rem.* The Royal Commission did not sit until 8th October, 1902, and its scope of enquiry was limited to the period "Military Operations up to the occupation of Pretoria." The *C. of E. Rem.*, though held before the war had concluded, contains for our purpose fuller information than it was the duty of the Royal Commission to ascertain.

The organization of the Remount Department before the war was based on the annual requirements of the army in time of peace, amounting to 2,500 horses, and on the assumption that the troops to be employed in time of war would, according to the Secretary of State in 1891, amount to two Army Corps, a Cavalry Division, and a Line of Communication troops. The number of horses thus required would be 25,000, including the effective animals already in possession of the force, but Mr. Stanhope, the Secretary of State for War, was very clear in his statement that the contingency of so large a demand was to be considered highly improbable. This fact should be specially noted, for on it was based the organization of the department

which had to find the extra numbers. These numbers made provision for six months wastage and replacements (*C. of E. Rem.*, Q. 7923-7924), and also provided for the weeding out of such animals in the peace establishment that from age, constitution or infirmity were unfit to take the Field. The numbers, in fact, provided 30 % more horses than the peace establishment. The question now is what was the rate of wastage allowed? The amount is not specifically stated. In Appendix 33 of the *R.C.*, p. 231, a reserve of 10 % is mentioned as included in the 25,000. If the anticipated campaign lasted two months this would allow a wastage of 5 % a month, and there is good reason for believing that this was the wastage contemplated. Further, it will be noted that the 25,000 horses do not include animals required for transport purposes (*C. of E. Rem. Report*, p. 3 and Q. 6865).

As there were 11,800 horses already in possession of the troops on the peace establishment, and 14,000 on the registered reserve (*C. of E. Rem.*, Q. 299), the difficulties of providing for an expeditionary force were considered to be solved (*R.C.* p. 97). But the Royal Commission makes no mention of the provision of transport animals. In the tables of mobilization these were set down as mules, and the total number required for the projected fighting force of two Army Corps, one Cavalry Division, and Line of Communications was no less than 34,647. The question of transport animals would appear to have been overlooked by Mr. Stanhope. The Quartermaster-General, in his evidence *C. of E. Rem.*, Q. 6, gave it as his impression that Mr. Stanhope's numbers included transport animals. The Inspector-General of Remounts, *C. of E. Rem.*, Q. 305, 309 said that the transport was to be horses, and that they were to have been provided in England; he does not seem to consider that they were included in the 25,000, but the evidence is not clear. He certainly believed they were to be horses, though the mobilization tables said mules. As a matter of fact, the 34,600 transport animals, be they horses or mules, had not been provided for. If they were to be mules, as laid down, this necessarily implied purchasing abroad, and with it the concomitant risk of introducing glanders into the army. There is further evidence furnished by Sir G. Fleetwood Wilson, Assistant Under-Secretary of State, Q. 6112, *R.C.*, that it was considered 25,000 horses (including those already with the troops) would place us on a war footing. Until the force had its transport it was useless, and no provision of animals for this had been made in advance.

The question of sending a force to South Africa was under consideration during April, May and June, 1899, but nothing could be done in this matter as no money was sanctioned for any purpose, least of all for the supply of horses, of which the purchase is only the initial expenditure. It was not until 22nd September that sanction was obtained to spend money, though requisitions from various departments began as early as June and July, and

Sir G. F. Wilson states in his evidence, *R.C.* Q. 6121, that this delay ought not to have occurred, and that, from the point of efficiency, it was a very fatal thing. There is ample evidence to show that up to this date the military authorities kept urging on the Cabinet the gravity of the position, but the latter believed the political situation was capable of diplomatic adjustment. As a consequence no steps were taken to purchase animals in order to raise the troops to a war footing, and the only actual preparations in connection with the horse question were to send officers to Australia (in September), and the United States and Spain in August, to make enquiries, but on no account to purchase without orders to that effect.

In July, the Inspector-General of Remounts had succeeded in obtaining authority to send to South Africa an Assistant-Inspector of Remounts, Colonel Stevenson, and a Staff Captain. Their duties were to purchase animals locally, and to arrange for the establishment of remount depôts, in addition to the two already existing at Stellenbosch in the Cape, and Nottingham Road in Natal, which were only organized to meet local peace requirements. Colonel Stevenson was further charged with the duty of reporting on the Cavalry and Artillery horse supply of the Cape. Between July and September certain purchases of animals had been made in the Cape, and on the 13th September 3000 mules had been contracted for. It is significant of the temper of the then Secretary of State that, when this contract was reported by cable the same day, the General in the Cape was directed on the 14th to cancel 1000 of the mules as they were in excess of requirements! Nevertheless, a few days later, 22nd September, money for the purchase of animals in anticipation of hostilities was sanctioned, and on 23rd the purchase of mules in Italy, Spain and the United States began. It was not, however, until the 6th October that permission was given the Inspector General of Remounts to purchase horses, and in the middle of that month a Commission went to the Argentine to buy cobs for the Mounted Infantry.

This carries the remount arrangements up to the end of 1899. The required horses for the force were to be obtained in the United Kingdom, either from the registered reserve or by ordinary purchase, cobs for M.I. in the Argentine, horses in Australia, and mules in Spain, Italy and the United States, together with such local purchases of horses and cobs in South Africa as could be effected. It is convenient here to consider what was done in 1900.

In January, 1900, a second Commission proceeded to Spain to buy mules, and a Commission was sent to the United States for the purchase of Cavalry horses, while the one already in the Argentine was directed to buy Cavalry horses as well as cobs.

It was during January that the War Office took over the supply of remounts and mules for the Rhodesian Force then being raised. It did not supply, either to the Australian Bushmen or Imperial Yeomanry of this Force, the horses required

by them in the first instance, but only the subsequent remounts and all the transport mules.

On 27th March the purchase of horses by the Yeomanry Committee ceased, and the work was taken over by the War Office.

In April of the same year another Commission proceeded to Canada to buy riding and draught horses, and one to Hungary. Hitherto, all draught horses required had been obtained from the United Kingdom and Australia.

To revert, however, to October; it was not until the 12th that war was declared, but on 29th Sept. the Government had decided to dispatch a force consisting of one, not two, Army Corps, a Cavalry Division, and Line of Communication troops. According to the War Office Tables of War Establishments for 1899 this Force contained the following number of horses;—

	Horses.	Mules.
1 Army Corps	5210	9111
1 Cavalry Division	5006	2332
Line of Communications	11,122	14,093
	21,328	15,536

As a matter of fact the actual number of horses embarked by 17th November was only 11,000 for the Army Corps, Cavalry Division and details,\* while there being no mules in the country, these were to follow the Army from wherever purchased abroad.

On 11th Nov. reverses necessitated another Division (5th) being mobilised. On 2nd Dec. the 6th Division was mobilised. On 16th Dec. the 7th Division, and on this date twelve more batteries of Artillery were ordered out. In January the 8th Division was mobilised, and a Fourth Cavalry Brigade, and by this time all the regular troops had been expended. These sudden increments to the original Field Force were the first real drain on the Remount service. The needs of the October Field Force were readily met, but the sudden and unexpected mobilization of four additional Divisions and a Cavalry Brigade created a demand for 11,900 horses and 10,000 more mules; from that moment the troubles of the Inspector-General of Remounts began. What these were is no part of this history, but one supremely important point must be studied.

The class of horse suitable to South Africa does not appear to have given the Inspector-General of Remounts much concern. Obviously all horses then existing with the troops in the United Kingdom would have to proceed whether suitable or otherwise, but the animals to be obtained to bring up the Army to war strength appeared to offer an opportunity for sending to South Africa the class of animal shown by experience to be the most desirable. The Director-General of the Veterinary Service when war broke out was Colonel Duck. He had seen extensive active service in South

\* The composition of this force was:—8 Regiments Cavalry, 4 H.A. Batteries, 12 F.A. Batteries, 3 F.A. Howitzers, 32 Battalions Infantry. † Co.'s M.I.

Africa, including the Gaika and Galeka war, the first Secocoeni war, the Zulu war, the first Boer war, and subsequently in the Bechuanaland Expedition. His knowledge of the country and the class of animal desirable was extensive, and this he endeavoured to place before the Remount Authorities at the War Office when war broke out. The matter comes out in his evidence before the Royal Commission.

Q. 3219. Were you consulted as to the class of horse that was required in South Africa?—No, but I went to General Truman myself and explained to him at the outbreak of the war my experiences of the big English cavalry horses—Drury Lowe's Brigade—the Lancers, King's Dragoon Guards, and Inniskilling Dragoons in the first Boer war, pointing out to him that the big English cavalry horse was utterly unsuitable, and recommending him to buy a smaller, more compact, better bred horse. I also had frequent conversations with Colonel Tollner, the principal purchaser, pointing out to him what I considered was the right class of horse to send out, and he told me "You may be right or wrong, but if I bought the class of horse you suggest they would all jeer at me."

Q. 3220. That class of horse was not adopted?—No.

Q. 3221. Did you warn them against any particular class of horse?—I warned them against the big English cavalry horse, so nice on parade in England, but utterly useless in Africa.

Q. 3222. You did not go into the question of where the supply of horses was to come from?—No, that does not touch me.

We are anticipating matters by two years or more, but at the end of the campaign there was not a man who did not endorse the view of the uselessness of big horses in South Africa.† Nevertheless they were purchased, and the representations of Colonel Duck to General Truman on the serious nature of this question only ceased when he was informed that his advice "when needed would be asked." We shall return to this question later, when it can be more conveniently discussed.

The cobs purchased in Argentina were intended originally for the Mounted Infantry. The history of the Argentine purchases of small animals is curious when it is borne in mind that South Africa abounded in them. It was not a new matter this carriage of coal to Newcastle. In 1897-98 the Argentine had been drawn upon to supply 1200 cobs for the Mounted Infantry in the Cape and Natal, but why it was considered necessary to go oversea for what existed on the spot has never been satisfactorily explained, and neither the R.C. nor the C. of E. Rem. took evidence on the point. The 1897 cobs were purchased in the Argentine by Colonel Truman, as he was then, and the subsequent reports from South Africa on these animals was sufficient to bias him as to the suitability of

\* Cable No. 112, from Lord Kitchener to Secretary of State. 15th January, 1902. "Small compact strong well-bred horses are what we require."

Cable No. 115. 22nd January, 1902. "English horses too large and heavy."

From Inspector Remounts S.A. to A.A.G. Remounts, War Office. "You know the Cavalry will not have big horses. . . . Animals that would make polo ponies at home are the stamp they like." Letter dated 20th Sept., 1901, C. of E. Rem. App. F.

the Argentine to supply the cobs required for the war. The report, dated 1897, was produced in evidence before the *C. of E. Rem.*, Q. 5315, but no report for 1898 is referred to, though about July, 1899, General Sir Wm. Butler reported that they looked well but had not the bottom or go in them of the Cape horse. \* In 1898 there was evidence among these imported Argentines of osteo-porosis. The disease was detected by Lieut. A. H. Lane, A.V.D., whose diagnosis was supported by Dr. Hutcheon, P.V.O., Civil Veterinary Department, Cape Colony. † No reference was made to this during the enquiries into the war, but it points to the fact that these animals were not an unqualified success outside their own country and on different food. The point is of no material interest to this history, for none of the thousands of Argentines sent over for the war ever lived long enough to develop osteo-porosis. The point which is all essential to understand is the reason why the animals of South Africa were discarded? Prejudice against the local article, false information as to the numbers obtainable, ignorance of the country, and unwillingness to listen to those who knew. Such, briefly, is the explanation why, until compelled by dire necessity, we refused to have anything to say to the small horse of Africa, which was hard and immune to disease and privation, but preferred an oversea, unseasoned, sea-sick horse or cob in its place, new to the country, the work, and the food.

The following striking evidence bearing on this matter was given by the Quartermaster General of the Army before the *C. of E. Rem.*, Q. 13.

"On 16th November, 1899, I reported that South Africa was evidently unable to procure cobs for Mounted Infantry locally. . . . I knew perfectly well that there were very large numbers of cobs available in that country, and pressed the General Officer of Communications in South Africa to get them."

#### CREATION OF A REMOUNT SERVICE IN SOUTH AFRICA.

The date of the above report is of interest, a new General had recently arrived at the Cape who would naturally refer this question to the Remount Department, which had been there since the last week in July. Colonel Stevenson, who it will be remembered went to South Africa in July, had, after buying the horses for Baden-Powell's Force, passed into Natal, where he arrived on 30th August and there remained. In the meantime there had arrived in Cape Colony an Assistant Adjutant-General of Transport and Supply, under him a Director of Transport, and in October a Staff Officer for Remounts—Major Birkbeck.

\* *C. of E. Rem. Report*, p. 28.

† Five months before the war broke out Lieut. A. H. Lane, A.V.D., wrote a report on the Argentines shipped to South Africa and condemned them. The report went both to the War Office and Colonial Office. See *United Service Magazine*, April, 1912, "Horses for War Purposes."

The function of these officers has been fully described at p. 114. The Remount and Veterinary Services were to be administered under regulations which we have shown were hopelessly out of date and unfit for application in war. The provision of horses has no more to do with the Director of Transport, who finds the wheels for the Army, than it has with the Director of Ordnance Stores, who finds the saddlery, harness and shoes. Fortunately, and by mere accident, the Director of Transport was an excellent horsemaster and a first class judge of a horse, so that by pure accident the management of remount affairs fell into exceptionally capable hands, but it might easily have been otherwise. As we have already said, it is obvious that the gigantic question of transport for an Army is sufficient to absorb the entire attention of one man, and Lord Roberts on arrival evidently thought the same, for he divorced the connection between remounts and transport.

Prior to this the Director of Transport provided both officers and subordinate personnel sufficient to start four remount depôts at Port Elizabeth, Queenstown, Naauwpoort and De Aar, besides strengthening the original depôt at Stellenbosch. This gave five remount depôts for Cape Colony up to the end of 1899.

This arrangement received a rude shock on the arrival of Lord Roberts, who swept away the existing transport organisation, and drew up a plan of his own. By this he withdrew all the soldiers from Remount Depôts and allowed a few days for carrying out the change. We shall let the Staff Officer for Remounts in South Africa tell his own story, which he does in a private letter dated 8th February, 1900, to the Inspector-General of Remounts, War Office, and which is published in Appendix F., *C. of E. Rem.*:

"All was well with us; we had a capital staff of A.S. Corps, officers, warrant officers, and men, and plenty of the Cape boy drivers to run all our depôts, and excess numbers of cavalry to ride our wild horses, and things all went smooth.

Suddenly — \* arrived upon the scene. All the transport arrangements were altered. Regimental transport, except technical vehicles, swept away, and 28 transport companies to be formed at once of 520 mules each. It is sound, I think, in the peculiar circumstances of the case, but it hit me awfully hard, for with one stroke of the pen the whole of my establishment was swept away, and I was left with about eight officers and fifty others, with 10,000 animals."

This extract shows the difficulties which one may experience on service. The whole fabric of remount organisation swept away after four months careful building up. Incidentally the account will help to explain the relationship existing between the combination of remounts, transport, and the latter's twin brother "supply," to which we shall more than once have to draw attention.

\* This blank is in the original.

From February, 1900, onwards the Remount Department had to depend upon a civilian and native establishment, together with horsekeepers from India. An attempt was made both in May and June to utilise the regular Remount companies, two of which had just arrived from home complete in personnel; but in a few days, under orders from the War Office, they had melted away, every non-commissioned officer and man having been drafted to cavalry and artillery.\* Those who advocate supplying the A.V.C. in war with men derived from cavalry, or in any other way excepting by men of its own corps, are trusting to a rotten reed which will snap the moment it is required. The reconversion of men of the Remount companies into cavalry soldiers and artillery drivers the moment they reached the seat of war should never be forgotten, and shows the uselessness of one branch of the service depending upon another for personnel in war.

Dual armies now sprung up in South Africa, *i.e.* in the Cape and Natal: nominally under one Commander-in-Chief, they were in reality separate entities until they fused at Belfast in July, 1901, (p. 98). The Natal Army regarded itself from a very exclusive standpoint, nor was there absent a want of co-operation with the Cape Army not confined to the fighting branches.

The circumstances which led to Colonel Stevenson proceeding to Natal, as previously narrated, form no part of this history; he was senior to the Staff Officer of Remounts at the Cape (known since the reorganisation in February, 1900, as the Assistant Inspector of Remounts), nevertheless he was not given charge of the Remount Department in South Africa, but remained in Natal, which the exclusiveness of this command favoured. The point, however, is not devoid of interest to us, for the Inspector of Remounts in Natal assumed it to be his right to take charge of all veterinary hospitals, while the Assist. I.R. in the Cape wished for the right but did not assume it. Evidence on the latter point will be considered in detail in the section devoted to the horse question in 1899-00. The evidence connected with Natal is given by Colonel Stevenson himself before the *C. of E. Rem.* In a lengthy reply to Q. 2946 he tells us of two veterinary hospitals in Ladysmith over which he had supervision, and that when the town was invested they were placed in charge of one of his attached officers, Captain Bevis. In the same answer he speaks of the "Sick Horse Depots" he formed at Frere, Estcourt, and Mount Alice, and generally gives the impression that the work was his, the Veterinary Service never being referred to in connection with it. We have seen (pp. 23, 84) the result of the indiscriminate method adopted in Natal at the early part of the war in returning war worn and sick horses to remount depots.

Regarding the two hospitals in Ladysmith Colonel Stevenson was clearly under some

misapprehension; these were Indian Veterinary Hospitals under Veterinary Officers, and in charge of the P.V.O. With these he had nothing to do, nor could he have left an officer in charge of them. His statement on that point is inaccurate, he was evidently thinking of the Remount Depot.

In the *C of E. Rem.* the relative positions of Col. Stevenson and Major Birkbeck formed the subject of several questions, and they led to an expression of opinion by the witness, General Truman, which is of great interest to those who hold the importance of rank being given to all who have to serve with an army.

Q. 497. Who was supposed to look after the remounts there (Cape Colony)?

A. Major Birkbeck was looking after them.

Q. 498. Surely Lieut.-Colonel Stevenson was sent out?

A. Yes, but he was not made head of the Department; he was sent up to Natal.

Q. 502. You were not allowed to send a senior officer to Major Birkbeck, you mean?

A. Yes, I suggested in January, 1900, that a senior officer should be sent out, and it was referred, as far as my memory serves me, to the General Officer at the Cape, and they said they did not require a senior officer—that Major Birkbeck would do the work.

Q. 503. Did any disadvantage accrue to the Service owing to that?

A. I think so myself; as a junior officer he had no authority, and he could not say "No" to a General officer if he said he wanted horses.

Q. 506. What rank of officer would you have suggested should be sent out?

A. A man holding the rank of Major-General.

For many months to come there was a separate Remount Department in Natal and Cape Colony, the junior officer being in charge on the Cape side, with all the large operations on his hand, the senior being on the Natal side. The duties of the Assist. Inspector of Remounts, South Africa, were such as might well have shaken the nerves of a more experienced man, and the peculiar position he occupied towards his senior officer in the same department in Natal could not have been very helpful. The post was no sinecure. It was held by a young energetic man, of mild exterior, courteous manners, optimistic by nature, calm and unruffled in disposition, no matter how serious the situation; he never spared himself, though perhaps he was too ready to spare others. Of Remount work there is his own evidence that he possessed no knowledge.

"The waste of public money by incompetent purchasing officers, ignorant of the peculiar conditions of South Africa (but the only ones available at first) has been serious. How far better things would have gone with this department at the beginning of the war had a body of trained remount officers been at once available, who had had experience of the country and knew its peculiarities and resources, instead of those who, like myself, arrived in South Africa unequipped with the necessary technical knowledge of the work, and eager to do anything rather than remain at the Base or on the lines of communication. We have bought our knowledge at the expense of the public purse, and there are now few of us who would willingly exchange our present duties for other employment."

Report by Lieut.-Colonel W. Birkbeck, Assist. Inspector of Remounts, South Africa, to the Quartermaster-General, War Office, dated 22nd December, 1900. *Parliamentary Paper*, Cd. 963, 1902.

\* See p. 82 Appendix to Report of the R.C.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Out-breaks.	Slaugh-tered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN. Week ended Mar. 15	20		20				2	57	119		5	37	587
Corresponding week in	1912	19	18				3	6	81	148	5	69	621
	1911	18	24			6	1	5			7	52	687
	1910		28	82			7	21			12	25	172
Total for 11 weeks, 1913	147		161				36	111	869	1881	98	374	4391
Corresponding period in	1912	280	809				36	82	1397	3258	134	657	8156
	1911	230	264		1	18	46	176			270	401	4583
	1910		340	411			75	219			264	257	1833

† Counties affected, animals attacked : London 2.

Board of Agriculture and Fisheries, March 18, 1913.

IRELAND. Week ended March 15							Outbreaks		4	1	3
							2				
Corresponding Week in {	1912	...	...	...	...	...	1	14	5	41	
	1911	...	...	...	...	1	2	5	1	3	
	1910	...	...	...	...	...	2	17	3	27	
Total for 11 weeks, 1912							68	188	37	182	
Corresponding period in {	1912	1	1	...	...	...	25	195	35	286	
	1911	3	3	...	...	1	27	183	31	586	
	1910	4	6	...	...	...	22	230	10	355	

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, March 18, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## Diseased Meat Prosecution.

Before E. B. Dawson, Esq., and other Lancaster magistrates on Monday, 10th inst., a case was heard in which the point was raised: "Is it possible for a lymphatic gland in the hind quarter of an animal to be tuberculous without affecting the remainder of the carcass?"

Thomas Charles Rainford, butcher, County Meat Stores, trading in different Lancashire towns, was summoned for exposing diseased meat for sale, on Jan. 16th, and Archibald Patterson, of Preston, was similarly summoned.

Mr. T. Cann Hughes (Town Clerk) prosecuted, and Mr. H. D. Wilson defended.

The Town Clerk said that the proceedings were brought under Sections 116 and 117 of the Public Health Act. The defendants traded as "The County Meat Company," having shops at 5, Brook Street, and at 37, St. Nicholas Street, Lancaster. On January 16th Dr. Cates, in consequence of information, went to the shop, 5, Brook Street, at 10.30 a.m. with the Assistant Sanitary Inspector (Mr. Egner), and saw the piece of beef exposed for sale. They saw on the left-hand side a piece of bone, about three inches long, so that meat to that extent had been sold. The diseased meat was in the centre, where a gland was, and on examination Dr. Cates was satisfied it was tuberculous, and there was no doubt considerable damage could be done to the town by selling meat of this description. Dr. Cates saw the manager, named Walmsley, and the meat was seized, and taken before Mr. Hamer, J.P., who ordered its destruction. The Town Clerk spoke of the efforts of Parliament and local authorities to stop the sale of tubercu-

lous meat, as it was a recognised means of conveying disease. On January 16th, Dr. Cates received a letter intimating that the manager had made a mistake in saying that was the only part of the carcass in town. He had forgotten that a portion was cut off on January 15th and sent it to the shop, 23, St. Nicholas Street, where a portion of it could be seen by the Inspector the following day.

The photographs were proved by Cyril Walmsley (from the Borough Surveyor's Office).

Dr. Jos. Cates (Medical Officer) said on January 15th he visited the shop, 5, Brook Street, about 10.30, in company with Mr. George Egner, assistant sanitary inspector. On a slab close to the window he saw a piece of beef, the cut surface of which was exposed to the road. It was a leg. The centre of the meat appeared to be diseased. Witness went into the shop, and saw the manager, Herbert Walmsley. He pointed to the joint in the window, weighing about 20 lbs., and asked to see it. He was allowed to have a closer inspection of the meat, and found in the centre of the cut surface of the meat an enlarged lymphatic gland or kernel in an advanced stage of tuberculosis. The gland had several areas of cheesy abscess formations. From one side of the joint about three inches of bone protruded. The diseased gland was cut through, and the slices of meat which presumably had previously been cut off would have contained portions of the diseased gland. Walmsley said that the remainder of the carcass had been sold. He seized the portion of the carcass left and had it conveyed to the Town Hall. On the same day it was seen and condemned by Mr. Hamer. He gave the representatives of the Company ample opportunity to inspect the meat, informing the manager that it could be in-

spected at the Town Hall during the same day by anyone acting on behalf of the Company. At the request of the managers he subsequently extended the time. The meat was kept in ice and inspected by various people on their behalf. The meat was undoubtedly unsound and unfit for the food of man. On January 16th he received from the manager the letter (produced). As a result he visited the shop in St. Nicholas Street, and was shown a portion of beef which it was stated belonged to the same carcass as the joint previously seized. Witness examined it and found it showed no obvious signs of tuberculosis, but there were no lymphatic glands in this joint. It was impossible, therefore, to draw any conclusion with regard to the rest of the carcass.

By the Chairman: The piece at St. Nicholas Street did not correspond with what he saw at Brook Street. There were no glands at all either diseased or otherwise.

Continuing, witness said acting on a statement that it came from the same carcass he suggested it should be voluntarily surrendered. The manager of the shop agreed to this course.

The Chairman: Surrendered to the Corporation?

Witness: Not for food, sir. (Laughter.)

The Chairman: You don't know what they might do with it. (Laughter.)

In cross-examination witness said the piece seized in St. Nicholas Street seemed all right. There were no glands about it. He had no reason to suppose it was not part of the carcass. He did not say the gland had tubercle bacilli in it, but he said it was in an advanced stage of tuberculosis. The gland in question acted as a "filter" like all lymphatic glands. If there had been any bacilli he would have expected to find it in this or some other glands. There was or had been tubercle bacilli in the gland. If the meat was diseased he would look for it in the lymphatic glands. A fat bullock might die of tuberculosis before the fat disappeared. This was a well-fed joint. But for the gland there was no sign visible to the naked eye. The diseased gland should have told the butcher the meat was diseased. He could find out when he cut into it. There was evidence that at least three inches of meat had been cut off—perhaps more. He had known of a butcher selling a round of beef with a healthy gland in it. The manager offered to cut out the gland. He told him he was Medical Officer of Health before he offered to sell it. The meat was not hidden. Mr. Robertson (veterinary surgeon) asked for a piece of the gland. He did not refuse to let him have it. He wanted the gland, and witness gave him a pathological swab, but did not refuse to give him the gland. He told him that if he would show what he wanted he would cut it out for him.

Mr. Wilson: I'm told it was a filthy knife!—  
Witness: It was certainly not filthy.

Witness said that he sent samples away. The pathologist cut his own samples off. It was not the same knife.

Would this meat have been fit for food on the Wednesday if the gland was cut out?—I don't think so.

Was the piece in St. Nicholas Street?—Assuming it came from the same carcass I thought it was in the interest of the public health to have it surrendered.

Witness added that when the gland contained living bacilli and it was full of cheesy material, every time the knife went through and cut off a steak, the knife was covered with a cheesy material and naturally smeared over the surface of the adjoining area.

Mr. Orlando Ducksbury, veterinary surgeon, Lancaster, said that on January 15th he examined a piece of frozen meat which had been cut through the popliteal gland, exposing a tubercular mass. The butcher must have known it was not in a healthy condition when he

cut it. It was quite unfit for food.—Cross-examined: If he had not seen the gland he would not have had the slightest suspicion about the meat, but a butcher could tell as soon as he saw the gland. He could not give the percentage of cows living in this country which had glands of this description. He could not say whether the bacilli were dead or not. Butchers sold the gland in a round of beef.

Mr. Wilson: If a gland like this is found at the slaughter-house, do they condemn the whole carcass?—  
Witness: I am not a meat inspector.

That is a neat answer; but have you known a gland cut out of a joint, or have you known a whole carcass condemned?—There is no doubt that piece should be condemned.

The Chairman: How many degrees of frost would kill the bacilli?

Mr. Wilson: It is generally heat that kills the bacilli.

Alfred Holburn, M.R.C.V.S., Congleton, veterinary inspector for Cheshire County Council, and formerly meat inspector at Manchester, said he examined the meat on January 21st, and found it contained a lymphatic gland with characteristic tubercle. Any butcher should know at once what it was, and should not have exposed such meat for sale. It was diseased and not fit for the food of man. In all his experience, inspecting thousands of carcasses in a week, he had never found this gland tuberculous without finding tuberculosis in other portions of the carcass. Fat animals were often tuberculous. The second piece of meat did not appear to have anything the matter with it. There was no gland present.—Cross-examined: If the gland had been completely cut out he could not have told whether tuberculosis was in the meat or not without a test. When he found a chain of glands all the carcass affected was destroyed. If any part of the carcass was clear it was not destroyed. In the Argentine there was a good system of inspection. He did not know that the animals were branded by the Government. On arrival at Liverpool all meat could be inspected, but it was possible this had not been inspected. The meat was wrapped up and frozen, and removed to the cold storage.

The Chairman: An inspector in the Argentine might have passed this without seeing the gland.

Dr. Henry E. Annett, Liverpool, said on January 17th he visited Lancaster and inspected a piece of beef produced by Dr. Cates. He gave corroborative evidence as to the condition of the beef. The gland indicated tuberculous disease which he described as typically tuberculous. The gland was almost destroyed by the disease. The meat was certainly unfit for human food. He took away a portion of the gland for microscopical and bacteriological examination, and he found the structure of the gland was typically tuberculous and that the cheesy material contained a large number of living and virulent tubercle bacilli of the bovine type. A portion of the tissue he took away was subjected to microscopic examination, and confirmed his opinion. His bacteria test was made on guinea-pigs which were inoculated, and 14 days afterwards tubercular symptoms were evident. The disease spread, showing the bacilli were alive, and five weeks later one of the guinea-pigs died and another was killed. It was found that the tubercle bacilli had spread through each body. The gland was certainly in a condition of advanced tuberculosis and the disease must have existed some weeks before the animal was killed, but could not be detected. It was, however, more than likely that other portions of the carcass were diseased.

—Cross-examined: The meat in the neighbourhood of the gland would also be diseased. Thorough cooking would kill the bacilli. A mass of dead bacilli would do injury to anybody. Had the butcher cut the gland out he would not have known the meat was diseased.



Dr. Cates (re-called) said that if the gland was cut out it did not say that the other beef would be fit for food. This gland was usually cut out.

#### THE DEFENCE.

Mr. Wilson, in his speech for the defence, said that if it had taken the Corporation so long to prove their case, it could not be a very bad one. He contended that the defendants had, through their servant, acted perfectly innocently, and exposed the meat without having the slightest idea it was tuberculous. It was all very well for experts to be able to find out these things, but a butcher could not tell there was anything wrong till he actually cut into the carcase. The rule in Lancaster slaughter house was to cut out glands like this, and then then the rest of the carcase was considered to be quite sound. Mr. Wilson mentioned that the meat in question came from the Argentine, where there was a careful inspection, and was known as one of the best brands (Armour). The (La Blanca) Company's agents sold it to the defendants in Liverpool, and a hind quarter was sent on to Lancaster. About 20lbs. of beef of the top part was disposed of at the Brook Street shop and more in St. Nicholas Street. Walsley did not see the gland because it was nearer to the window than himself. The lymphatic gland was a sort of filter where these microbes were collected. They were cut out and not sold. He suggested it was a case where a small penalty would suffice. The prosecution had called more witnesses than necessary. It was going to be hard on butchers and the ratepayers if cases were made so costly.

In answer to the Bench, Mr. Wilson said witnesses would not deny that the meat was exposed for sale, but there was no guilty knowledge.

The Chairman said that they need not call evidence about the care that the authorities took in the Argentine to get a sound meat supply. They could quite understand when the meat was frozen it could not be seen very well when it landed at Liverpool.

Mr. H. E. Walsley (manager of the Brook Street shop of defendants) gave evidence, saying the meat was half of a hind quarter, weighing 75lbs. or 80lbs. He cut the rump off and sent that to the other shop, and cut the lower part off. He also cut off the fat, and had sold about 18lbs. of steak and 10lbs. of the shin and knee. The piece looked so nice on the Wednesday that he put it next to the window and cut away steaks from it. Had he seen the kernel or gland he would have cut it out at once and put it amongst the fat. They took the glands out always, whether they were diseased or not. He did not know Dr. Cates, thinking he was a customer, but he knew Mr. Egner.—Cross-examined: He did not say the kernels were not dangerous, but said they could be found in every round. He had never seen glands like that before. He would have eaten the meat himself, but not the gland. He had orders to offer nothing unfit for food.

By Mr. Hamer: He had been in business 20 years, and had never seen a gland like this before.

James B. Robertson, veterinary surgeon, Lancaster, said at the request of the defendant he went to inspect the beef at the Town Hall. He asked for a piece of the gland, but only got a "smear" from the gland which Dr. Cates took himself with a small piece of cotton wool at the end of a holder which he replaced in the tube and gave to witness. He asked for a portion of the meat, and a knife was proffered to him to cut it.

Mr. Wilson: What state was the knife in?—Witness: The most filthy knife I have ever seen used outside a knacker's yard.

Mr. Wilson: That was in the Town Hall of Lancaster?—Witness: In some part of the Town Hall.

Not in the Court I hope?—No.

The Chairman: I should not like to see it in Court.

Mr. Wilson: Is it conceivable the knife may have

had any sort of bacilli on it?—Witness: Yes. It had blood on it. I refused to use the knife and took out an instrument of my own and cut a small portion off the meat.

Continuing, witness said he experimented with the swab and found traces of bacilli, but he could not say whether the cultures were tuberculous bacilli. He did not hold a certificate for vivisection and could not test guinea-pigs. On the meat itself he could not find traces of tubercle bacilli. He did not know much about the meat trade, but he knew a great deal about the meat supply to large institutions like the Royal Albert. It was customary to remove the lymphatic gland before the meat was sent to the cook.

Mr. Wilson: If this gland was removed is the meat necessarily bad?

Witness: That is a very vexed question. Some people hold that if any portion of a carcase is affected by tuberculosis it condemns the whole, but in my opinion if the bacilli are not present in the meat, the meat is not injurious to man. About 25 per cent. of animals in England were affected in some portion of the carcase by tuberculosis. The microbes in the lymphatic glands were sometimes destroyed by the animal tissues. He thought that if the gland had shown great signs of tuberculosis, portions of meat higher up would have shown the same conditions. Freezing did not kill the microbes, it was heat.

Cross-examined: He was not a meat inspector, but he had a great deal of inspection of animal flesh. He had frequently inspected meat, and had taken his instruments with him to cut it up.

The Town Clerk: Why didn't you use your knife on this occasion?—Witness (emphatically): I did.

The Chairman: He said he did.

The Town Clerk: I did not hear you.

Witness: You are quite mistaken, I said I would refuse to use such a knife as that provided by Dr. Cates.

In further cross-examination he said that he had been in conflict with one of the witnesses before and was not afraid to say so. He had had a considerable experience outside Lancaster, in the United States, and also at the Royal Albert Institution, where the Chairman remarked they had some trouble many years ago. Witness added that he had had 25 years' experience, and he would not crawl into a manhole because the Corporation had fetched a man from Manchester and another from Congleton.

The Chairman: These gentlemen will lunch together after the Court is over. (Laughter).

Mr. Wilson: You should have fallen down when they blew the trumpets?

Witness: No, because Jericho didn't fall down when the trumpets were blown. (Laughter).

Mr. Wilson: It's the old story. Blackguard the other side, you know.

#### DECISION.

The Chairman said the Court had come to the conclusion that the offence of exposing diseased meat for sale on January 15th had been committed and for the protection of the public they imposed a fine of £5 and costs (£2 10s. on each defendant).

The Town Clerk asked for £23 2s. costs, including the experts, which he contended were necessary.

Mr. Wilson objected to these costs. The Medical Officer was on one side and a butcher on the other, and he did not think it necessary to call the experts in a town like Lancaster.

Mr. T. Cann Hughes said that this was the practice in Manchester and larger towns than Lancaster.

Mr. Wilson: It's the same as if we keep a dog and pay another to bark for him. I object.

The Chairman thought it was desirable to support the opinion of the Medical Officer, and they allowed £23 2s. special costs.

### The Use of Tuberculin in the State of Wisconsin.

The following reply to an inquiry by Secretary Ferguson, of the United States Live Stock Sanitary Association, which is self-explanatory, is here reproduced:—

"Dear Sir,—I acknowledge herewith receipt of your letter of December 18, 1912. In reply, will say that a Wisconsin state law allows laymen to administer the tuberculin test, under certain restrictions, after passing an examination given by the Live Stock Sanitary Board. Permits for such testing are issued subject to revocation at any time by said board. In no case are tests made by laymen approved for interstate shipment by the State Veterinarian of Wisconsin, nor have they ever been. The matter of approving certificates of health for interstate shipments is wholly in the hands of the State Veterinarian.

"Very truly yours, GEO. WYLIE,  
"President, Wisconsin Live Stock Sanitary Board."

### "Professional" Evidence.

At Acton police Court on Wednesday, 19th inst., William Pickett, 26, a chimney sweeper, of Midsummer Avenue, Hounslow, was charged with working a horse which was suffering from weakness and lameness on the near hind leg at High Road, Chiswick.—P.C. 614 T gave evidence and Inspector Langham, R.S.P.C.A. was then called for the prosecution. Answering the magistrate the inspector stated that he did not see the horse until after it had been stopped.

The Magistrate said it was not fair that the witness should be called to give what appeared to be "professional evidence" but it was not. He (the magistrate) had received a communication in connection with the matter, and the bench thought it was unfair. It was recognised that the inspector did assist the police in these matters and was on the spot at the time—and he was expected in such a case to give evidence at the court—but it was considered to be unfair to the veterinary profession for him to be called into a case after a horse had been stopped. If any further evidence was required by the police it should be professional evidence. The bench, however, did not regard witness's evidence as "professional evidence."

The Inspector said he would make a note of the observations.

The owner promised to rest and feed the horse, which was considered to be half starved.—Costs only.—*County of Middlesex Independent.*

### OBITUARY

WILLIAM BOWER, M.R.C.V.S., E. Rudham, Capt. A.V.C., T.F. Graduated, Edin: April, 1865.

We regret to record the death of Mr. William Bower, M.R.C.V.S., of East Rudham, who passed peacefully away at five minutes to nine on Wednesday evening, 19th inst. He would have reached his 67th birthday on April 3rd. He has been gradually sinking since Sunday, but was conscious almost to the last.

Among many telegrams of sympathy, Miss Bower has received the following from Sandringham:—"The King commands me to convey His Majesty's sympathy in your great bereavement. Sir Dighton Probyn expresses his deep sorrow in the loss of our old friend.—Frank Beck."

Mr. Bower qualified as a veterinary surgeon at Dick's College, Edinburgh, in 1865. He then joined his father, the late Mr. W. J. Bower, who had an old-established practice in East Rudham, and on his father's death, succeeded him.

His clients since that time are spread over a very large area in West Norfolk. Mr. Bower was well known also in the sporting and agricultural world, and it is no exaggeration to say that he was far and away the most popular man in the neighbourhood. He was generous to a fault, and many *protégés* outside his immediate family will miss his gracious and kindly help. In Rudham his loss leaves a blank that cannot easily be filled; his genial personality and unflinching courtesy endeared him to all, rich and poor alike. He was always ready with help for any good cause in the parish or neighbourhood.

Mr. Bower stood high in his profession. For upwards of 30 years he has held a warrant of appointment to the Royal Household at Sandringham, first to his late Majesty King Edward VII., both as Prince of Wales and afterwards as King. This was continued with King George, and also with Queen Alexandra. A few weeks ago, while Mr. Bower was still able to attend to his profession, though far from well, he went to Sandringham to see King Edward's little dog, "Cassar," which was ill. On this occasion Queen Alexandra personally presented to Mr. Bower a handsome gold scarf pin, bearing the initials "E. A." in diamonds, and also a large signed portrait of herself and the late King Edward as they went to the opening of Parliament in 1910. Her Majesty added a few gracious words, which doubled the value of the gift.

Mr. Bower was in the Kings' Own Imperial Yeomanry from the time of the formation of the Corps, first as Lieut. farrier, and then as Captain. He attended camp each year till 1910, when he resigned.

Mr. Bower was for a term of years a valued member of the Council of the Royal College of Veterinary Surgeons, and had acted as Vice-president. He had been President of the Eastern Counties Veterinary Medical Association on more than one occasion, and was on the Council for several years. He acted as veterinary surgeon to the Hackney Horse Society and held appointments under the Board of Agriculture and the County Council for Norfolk. He was frequently Inspector and referee at the Royal and other Agricultural Shows.

Some of these latter appointments Mr. Bower gave up in the autumn of 1909, when he had a nervous breakdown, and went to South Africa for the winter. On his return early in 1910 he appeared to be quite restored to health and continued his practice and his duties at Sandringham, where he stood very high in the estimation of the Royal family.

Mr. Bower married in 1871 Miss Elizabeth Carter, daughter of the late Mr. James Carter, M.R.C.V.S., of Litcham, but she died within a year of the marriage. He leaves three sisters. He has been failing in health for the last twelve months, but almost to the last he was able to direct his assistant, and was *au courant* with all that was done in the practice.

The funeral at East Rudham on Saturday afternoon last, was a striking demonstration by all sections of society, of sympathy and respect for a generous personality. To those who knew the lovable nature of the man and his reputation for scattering largesse without stint among those who most needed it, it is unnecessary to mention how very deeply his loss will be felt not only in the immediate district of his home, but further afield. The funeral was fixed for three o'clock, yet fully a couple of hours before, the windows of business establishments each had a black shutter, while the blinds of every private house were drawn, and from the tower of the parish church the Union Jack lowered to halfmast, was straining in a strong breeze. About half-past two numbers congregated in the vicinity of the church, and it was noticed that rich and poor alike were anxious to claim the common relationship of friendship with the

deceased. Perhaps the remark which was heard more than once, "There will never be another William Bower, he was a marvellous man in many ways, and one in a thousand," indicated pretty clearly in what high estimation he was held by the community. Simplicity and pure devotion were the twin notes of the funeral. Beautiful flowers alone stood for display. The brethren of the Joppa Lodge of Freemasons at Fakenham, of which Mr. Bower was an old member, dispensed with their regalia, each carrying a token of remembrance in the form of a little sprig of acacia bound with white silk, which was reverently dropped into the grave on passing.

On a wheeled bier the coffin was borne from the house to the church, several of the employees of the deceased being placed in charge of it. It was of English oak, with a pine shell and brass furniture, and inscribed on the plate was: "William J. T. Bower, born 3rd April, 1846, died March 19th, 1913." The vicar (the Rev. Dr. Astley) read the lesson, and the hymns sung were "When our heads are bowed with woe" and "On the resurrection morning." Prior to the service Mr. Ruscoe, at the organ, played "Shepherd of Souls," and subsequently "O rest in the Lord" and the "Dead March" ("Saul"). Every available seat in the church was occupied, quite a number having perforce to stand in the vicinity of the font, which was smothered with wreaths. A number of floral tributes were also placed on the window ledges, at the foot of the lectern, and elsewhere. Following a brief but impressive service, the scene was changed to a corner of the churchyard, the grave is alongside that of the deceased's wife and his forbears. Everyone present took a farewell glance and sorrowfully departed, the touching and beautiful little Masonic tribute being generally noticed, although the special service peculiar to the fraternity did not take place.

The mourners were Miss E. L. Bower (sister), Mrs. Hodgson (sister), and Miss A. S. Bower (sister), Mr. Herbert Powell (nephew), Miss Foster (cousin), Mrs. Scholey (cousin), Mr. C. Elphick. Mr. F. R. Beck (Sandringham agent) represented the Royal Family.

Among those who attended the funeral were Professor Hobday and Mr. Banham, representing the President and Council of the Royal College of Veterinary Surgeons; Mr. Shipley, Yarmouth; Mr. Smith, Lowestoft; Mr. Edward Case, Fakenham; Mr. M. Bray, Docking.

A large number of wreaths were received, including those from Mr. and Mrs. George Elphick and family, Newcastle-on-Tyne; Mr. and Mrs. G. A. Banham, Arthur Mason, Leeds; the President and members of the Eastern Counties' Veterinary Medical Society; Mrs. Shipley, Mr. and Mrs. Ringer, W. L. Little, Great Yarmouth; Mr. John Hammond, Mr. and Mrs. E. H. Leach, Newmarket; Mr. R. B. Palmer, Mr. Harry P. Standley.—*Eastern Daily Express*.

JOHN SKINNER KELLAND, V.S., Badsey, Evesham, Worcester, died on March 21st. Aged 72 years.

#### Personal.

Mr. CHARLES HOLLAND, M.R.C.V.S., obtained the Diploma in Veterinary State Medicine, University of Manchester, March, 1913.

Mr. E. J. BURNEDD, M.R.C.V.S., D.V.H., has been appointed Veterinary and Chief Meat Inspector to the Blackburn Corporation at a salary of £250 per annum. There were three other candidates before the Health Committee for the final choice—Messrs. A. B. Mattinson, M.R.C.V.S., D.V.S.M.; J. Smith, M.R.C.V.S., D.V.H.; J. Spruell, M.R.C.V.S., D.V.S.M.

Mr. R. C. ROBINSON, M.R.C.V.S., Veterinary Inspector, Carlisle, has had his salary raised from £125 to £150 per annum.

Mr. W. BROWN, M.R.C.V.S., Banchoory, has been appointed lecturer in Veterinary Hygiene at the North of Scotland College of Agriculture, Aberdeen, at a salary of £350 per annum.

Mr. W. N. THOMPSON, M.R.C.V.S., has been appointed Veterinary Surgeon for the London division of the Midland Railway in succession to the late Mr. A. Rogerson.

Mr. S. E. ROBSON, M.R.C.V.S., has been appointed to succeed Mr. Thompson as assistant veterinary surgeon in the Provinces, and a further appointment is that of Mr. H. A. TURNER, F.R.C.V.S., of Manchester, as junior veterinary surgeon in the Provinces.

#### PARLIAMENTARY.

##### NEW BILL.

In the House of Commons on Wednesday, March 19: Sir F. LOWE (Norwich, Min.)—Bill to amend the Acts relating to the practice of veterinary surgery and medicine.

#### The Milk Supply and Goat-keeping.

Giving evidence recently at Birmingham before the Irish Milk Commission, Mr. J. W. Robertson Scott said that he lived in an Essex hamlet, and he had been struck by the extent to which condensed milk or no milk at all was to be found in the homes of cottagers. Undoubtedly children were suffering from the lack of fresh milk. As to goat-keeping, no tether could be recommended as being absolutely safe. He had found, after various disasters to his fruit trees, that the best plan had been to make a rough paddock and keep the goats practically confined to a small space, bringing the greater portion of their food to them and giving them exercise by allowing them to be led about from time to time. The complaint that goats broke loose from their tethers and did damage might be met by small holders keeping them in a rough paddock and getting their children to take the goats for a run. The goat was a browsing animal, and if kept on a small area it would fall into bad health very quickly. Goats were hard to please in the matter of water, and unless the utensil and the water were perfectly clean and not tasted by another animal his goats often refused it. As dirty water sometimes affected the taste of the milk, that seemed to him important.

With regard to what could be done in Ireland to encourage goat-keeping, he advocated the giving of well-considered assistance to goat shows, or goat exhibits at agricultural shows, and providing stud goats in suitable contres. A goat ought to yield two quarts of milk a day at the second kidding. The difficulty in England was that there were not enough goats to go round. So long as the Board of Agriculture would not allow the importation of fresh blood, they could not get ahead, because most of the best strains had been as much inbred as was wise. The Board of Agriculture was justly afraid of foot-and-mouth disease, but it ought to be possible to devise some sufficient system of quarantine on both sides of the Channel. At the present time there was a more or less regular importation of hoofed animals to the Zoological Gardens, and his contention was that, in view of the excellent collection there, the need of good stud goats was greater than the need of more antelopes. If antelopes could be imported without bringing in foot-and-mouth disease, goats carefully selected and doubly quarantined might be imported. The Goat Society was prepared to accept any conceivable quarantine, both on the French and English side.—*The Times*.

## DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
GR. BRITAIN.													
Week ended Mar. 22	11		14				2	3	70	123	3	34	371
Corresponding week in	1912	24	25				6	11	67	180	6	67	694
	1911	14	17				2	8			5	61	630
	1910		28	29			12	23			9	24	261
Total for 12 weeks, 1913	158		175				39	114	939	2004	100	408	4763
Corresponding period in	1912	804	334				42	93	1464	3438	140	724	8850
	1911	244	291		1	18	48	179			275	462	5313
	1910		368	440			87	242			273	281	2094

† Counties affected, animals attacked: London 1, Middlesex 1, York, West Riding 1.  
Board of Agriculture and Fisheries, March 25, 1913.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
IRELAND. Week ended March 22	...	...	...	...	...	...	...	...	...	...	...	...	16
Corresponding Week in	1912	...	...	...	...	...	...	...	...	...	...	...	40
	1911	...	...	...	...	...	...	...	...	...	...	...	71
	1910	...	...	...	...	...	...	...	...	...	...	...	42
Total for 12 weeks, 1912	...	...	...	...	...	...	...	...	...	...	...	...	198
Corresponding period in	1912	...	1	1	...	...	...	...	...	...	...	...	336
	1911	...	3	3	...	...	...	...	...	...	...	...	657
	1910	...	4	6	...	...	...	...	...	...	...	...	297

† These figures include animals slaughtered and found affected on post-mortem examination.  
Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, March 25, 1913  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

## THE MILK AND DAIRIES BILL.

Sir,

Claims in the interests of the public and the profession in relation to the Tuberculosis Order, 1913, are so well put forward by Mr. Trevor Spencer in your issue of the 22nd inst. that I venture to think further argument or persuasion will not be found necessary to ensure the adoption of his suggestions. At any rate I cordially hope his efforts to serve these interests will meet with the support and success they clearly deserve. At this juncture it appears to me to be incumbent on members of the profession, best informed as to the requirements of the situation created by issue of this Order, to formulate a plan of action, which in their opinion is best adapted to render application of its provisions practicable and effective, and at the same time place themselves in a position to afford assistance to local authorities in arranging their schemes for administration.

The difficulties and responsibilities which the duties of the Veterinary Inspector entail demand a high degree of professional skill and common sense, for the exercise of which he may justly claim adequate remuneration. It is in every way desirable that he should associate himself with his fellows in the suggested endeavour to ensure efficient service and due reward. The occasion, to my mind, is momentous. No finer opportunity for rendering valuable service to the community has been open to the profession, and organisation and unity are essentials to attainment of the objects in view.

I have, however, digressed from my original intention, as the object of this communication is to direct the attention of the Veterinary profession to the position to which its members are relegated by the provisions of the Milk and Dairies Bill, particularly under Clause 2, the specially objectionable portions of which are included in the following:—

Clause 2 (1) "The Medical Officer of Health for any sanitary district shall have power to enter any dairy situate within the district and inspect the dairy and the persons em-

ployed therein, and, if accompanied by a Veterinary Inspector or some other properly qualified veterinary surgeon, to inspect the cattle therein."

(2) (line 36) "... The council to whom notice is given shall forthwith cause the dairy and the persons employed therein to be inspected by the Medical Officer of Health, who for the purpose of inspection of the cattle shall be accompanied by a Veterinary Inspector."

Whatever may have been the intention of the framer and the promoters of the Bill, there appears no room for doubting that the power to inspect cattle would be thereby given to the Medical Officer of Health. The position relegated to the Veterinary Inspector is at once invidious and degrading. The only obligation is that he shall accompany the Medical Officer of Health—may be in a sack, or at the end of a string, or even in a muzzle! It is the normal and particular function of the Veterinary Inspector to examine cattle and to report or take any action which may be deemed immediately necessary, and no logical argument can be advanced against his exercising this function in carrying out the provisions of this Bill when it becomes an Act of Parliament. Fortunately it has not yet become law, and I venture to express the opinion that self-respect, which is the foundation of the respect of others, should rouse the whole profession to make unanimous representation to the proper authorities, asking for amendment of this clause and any other which may appear to obstruct the due exercise of their special functions by veterinary surgeons in relation to the health of domesticated animals and, if necessary, to offer in the spirit of the motto, *Vis unita fortior*, the utmost resistance to the delegation to the Medical Officer of Health of duties he can no more claim to be qualified to undertake than the Veterinary Inspector could those of examining the "persons employed therein." There is some reason for thinking this Bill will be again introduced into Parliament early in the present Session. "I would urge that the matter should be immediately taken up by every Veterinary Organisation in the kingdom. The

Royal College of Veterinary Surgeons, the National, Metropolitan, and Provincial Veterinary Medical Societies should each make its representation direct or join in deputations to the Presidents of the Local Government Board and the Board of Agriculture and Fisheries. "Heaven helps those who help themselves," and if the profession does not speak—and it should speak as one man, the promoters of this Bill and those called on to deliberate on it in Parliament will take the silence as evidence of acquiescence, and conclude that the position relegated to the veterinary inspector is agreeable to him. I, however, hope that he will unflinchingly assert his rights, as I think he will have no difficulty in proving that his exercise of them would be to the public advantage.

If I may be allowed to make the suggestion, I think the main objection to the Bill from the Veterinary Surgeon's point of view would be removed if Clause 2 were amended so as to read:—

(1) The Medical Officer of Health for any sanitary district shall have power at all reasonable hours to enter any dairy situate within the district and inspect the dairy and the persons employed therein, and, if accompanied by a veterinary inspector or some other properly qualified veterinary surgeon, such veterinary inspector or other properly qualified veterinary surgeon shall have the power to inspect the cattle therein.

(2) From line 36 after "situated" . . . and the council to whom notice is given shall forthwith cause the dairy and the persons employed therein to be inspected by their Medical Officer of Health and the cattle therein by a veterinary inspector or some other properly qualified veterinary surgeon.

Doubtless there are other points in the Bill which call for consideration from the profession, and surely the time has arrived when the veterinary profession should emerge from its chrysalis, and assert its claim to recognition as a profession possessing the qualifications for performing duties of great value to the State, and set a united front against any attempt to place its members in a subservient position in relation to matters in which by virtue of these qualifications they should lead or act independently. In a memorandum presented by Professor Penberthy to the Chancellor of the Exchequer's Departmental Committee on Tuberculosis, which is printed in the appendix to the recently published Report, he expresses the opinion "that inspection of cows, cowsheds and dairies should be carried out by properly qualified persons; all matters which entail consideration of the hygiene and disease of animals to be under the direction of a properly qualified veterinary surgeon acting in consort with, but not subject to the control of the Medical Officer of Health." So much I venture to think should be demanded as our prerogative.—I am, Sir, your obedient servant,

E. Q. V.

Sir,

I herewith enclose a letter which I sent to the Right Honourable Thomas Burt, M.P., and the Right Honourable Charles Fenwick, M.P. My reasons for writing to the above gentlemen were, that I think the only way we can get our rights is to go for the whole working of this Bill, and if through the medium of your valuable paper you can rouse the veterinary public to write to their respective Members of Parliament, as I have done, I feel sure we shall be well supported if they get replies as encouraging as I have from these two Honourable M.P.'s. If not, then a general boycott of all public appointments is strongly advised (as was done in the Army) till we get what we consider justice.—I remain, yours truly,

"March 17th

To the Right Honourable Thomas Burt, M.P.

Sir,—Re the Milk and Dairies Bill, at present before Parliament, I humbly solicit your valuable services to try to put the working of this Bill into the proper hands, for reasons which are given below.

On looking through the above Bill it is putting the cart before the horse from beginning to end. A veterinary inspector or any other veterinary surgeon can do nothing without

the authority of the Medical Officer of Health. Now, sir, is it justice to former to be at the heel of the latter? They should each have their separate departments. Wary?

I. Because tuberculous milk is usually got from a cow or cows so affected. They are the root of the evil; therefore a veterinary surgeon is the most capable person to detect the diseased cows, and ought to be the notifying authority.

II. If after inspecting a dairy, he suspects a diseased cow or cows, to have power to take samples of milk, which can be handed over to the Medical Officer of Health, or sent away direct by him for microscopical examination at any Medical or Veterinary College.

III. By having a fixed appointment, a veterinary officer who may be a private practitioner too, can stand aloof, and do his duty thoroughly as a Veterinary Officer of Health. Otherwise no practitioner cares to be called in privately (as the occasion arises) by the Medical Officer of Health for a Local Authority, for by so doing he may perhaps condemn one or more of his client's cows thereby in all probability lose that client's patronage. The remuneration is not worth it.

THE REMEDY. A new appointment ought to be made jointly from the Local Government Board and the Board of Agriculture, making a *Veterinary Officer of Health* on the same lines as a Medical Officer of Health. His duties would be as suggested below:—

I. To inspect all cows in registered dairies, all registered dairies, and the milk therefrom.

II. To inspect all flesh meat at public and private slaughterhouses before being exposed for sale for human consumption. [Meat inspection is carried out (if at all) in a very imperfect manner].

III. (a) To have power to inspect any domesticated animal which he suspects to be suffering from disease, whether it be on the public highway or in a private stable, cowshed, or kennel.

(b) To have power to inspect any domesticated animal he suspects of being cruelly ill-treated.

(c) To inspect all horses, cattle, and sheep exposed for sale at any market or auction mart.

IV. (a) All suspected cases of disease (scheduled diseases under the Diseases of Animals Act) to be notified to him and dealt with by him.

(b) All orders from the Board of Agriculture to be carried out by him. (At the present time all scheduled diseases have to be notified to the police, and all licences granted by the police. A professional man after studying at least four years for his degrees objects strongly to police superintendence).

The above suggestions would be much more business-like, nor would they be so objectionable to the agricultural community of Great Britain.

In conclusion, sir, I hope that the above has not transgressed too much on your precious time, and that I may claim your approval and support.—I am, sir, etc.

#### VETERINARY INSPECTORS AND THE TUBERCULOSIS ORDER.

Sir,

I congratulate Mr. Trevor Spencer on his very able and practical article on the above subject in this week's *Veterinary Record*. He has cleared the ground in a way that the "man on the spot" is only able to do, and I hope his remarks may have the desired effect of rousing the latent enthusiasm in even the most apathetic members of our profession to a sense of their responsibility, and golden opportunity to prove our utility from a veterinary public health point of view. Having had an extensive experience of the difficulties besetting the correct and rapid diagnosis of incipient tuberculosis, whether in the mammary glands, lungs or mesenteric glands, I quite agree with the writer that *after all* the tuberculin test for early cases is the only reliable diagnostic agent. I defy even the most expert clinician to spot with certainty tubercular mastitis in its early stages, and farmers often have a laugh up their sleeve at the young and enthusiastic inspector who puts his foot into the "garget trap," that is, of taking a sample of milk from an ordinary

case of mastitis in the hopes of finding tubercle bacilli, and when he does not find it and the udder rapidly gets better, the farmer talks and looks wise, and you have to wait your opportunity to obtain a sample from an *apparently healthy udder*, and acquaint him with the fact that it contains tubercle bacilli to regain his confidence.

(1) The *microscopical examination* of milk is practically valueless in my opinion, as there are so many instances when the organism is overlooked, or not traced, even in a laboratory where this class of work is almost exclusively carried out by trained bacteriologists.

(2) We then have the *biological test* to fall back upon, which even through the medium of the most obliging guinea-pig, takes three weeks to certify, and if you cannot suspend the milk at once on suspicion, the delay is calculated to disseminate the disease broadcast during this period. It will be found a dangerous practice to suspend the milk from any merely suspected cow (even if you do obtain the consent of the owner) pending a biological test being carried out, for you may have the most definite clinical symptoms to make you suspicious and then the further tests may fail you, and your definite diagnosis on these lines utterly breaks down, and you are faced with the difficulty of an *unproved suspicion* which from the all-too-ready-to-be-critical owner's point of view is a self-accusation of ignorance.

(3) I have held the opinion for many years that the only solution to this tubercle-free milk problem is the tuberculin test, *properly carried out and with only a standard make of vaccine*. It should be made compulsory to produce temperature charts of each case, showing the reaction has been duly recorded by the veterinary inspector personally or by qualified assistant, and the inoculation carried out in a specified manner as to quantity and quality of tuberculin, sterilization of skin, syringe, etc., and no animal should be condemned for slaughter and compensation, unless proper evidence of this kind can be produced if necessary.

Whether these inspectors, and testings should be carried out by the present County Council veterinary inspectors amongst their own clients, or whether the Board of Agriculture should appoint a whole-time inspector in each county to supervise local veterinary inspections, I would not care to suggest, but we all know human nature to be an elastic quantity, and actions are often unconsciously prompted by self-interest. If we are to get to the bottom of this tuberculosis question with any hope of finality, a little plain speaking will be accepted for what it is worth by practical men with experience, who know that it is not a bread and cheese policy to have to get your own clients into trouble. That the actual condemnation of animals, and the arranging of values would come far better from an outside source, would obviate too much responsibility being taken in the case of a litigious client by the attending practitioner or meat inspector, is the conclusion I have come to after most careful consideration.

I have no doubt, however, that my views will not be readily accepted by those inspectors who naturally are justified in claiming to be classified with Caesar's wife, but I hope my remarks may draw them into a candid criticism of my suggestions, and make them realize how unsatisfactory their position is as the Act stands at present.—Yours, etc.,

FRANK J. TAYLOR, M.R.C.V.S.  
(late Vety. Inspector for Worcester C.C. and  
King's Norton D.C.)

Kensington, W.

Sir,

The veterinary inspectors will no doubt much appreciate Mr. Trevor Spencer's admirable letter in last week's *Record*.

Personally, I have not yet seen a copy of the Order, but it is absolutely essential that all inspectors should act with one accord, and, if possible, meet members of the County Councils and get the Act put upon a uniform working basis.

In my own case I am inspector under two County Councils, and if one should be allotted different ways of working the Order under two separate bodies, the work will be rendered most complicated.

It is to be hoped that every inspector will make a special effort to attend the forthcoming meeting in town.

I propose sending a copy of Mr. Spencer's letter to an influential member of one of our County Councils, and as he is a retired member of the profession he will be able to fully appreciate the various points, and to recognise the importance of putting the Act upon a proper basis with due regard to the special steps in which it will often be necessary for one to take in order to arrive at a correct diagnosis.—Yours faithfully,

W. T. OLVER, M.R.C.V.S.

Tamworth, March 21.

#### DUTIES OF INSPECTORS.

Dear Sir,

Could you tell me if whole-time veterinary inspectors will be appointed as inspectors of dairies under the *Bye-laws* which will come into force on May 1st, 1913.

Where there is more than one veterinary surgeon in private practice, will each have an area for inspection, or will the local authority have power to appoint any one they like?

Where more than one member is in private practice would it be fair to give one all the work to do and ignore the others, providing they are highly respectable men?

Should the local authority have the choice of inspectors? I think favouritism on the part of the authorities may be shown, and as the stamping-out of consumption is a national question, let every capable veterinary surgeon do his part, as I am sure they will if recognised.—Yours faithfully,

F. C. HOBBS.

Newport, Mon., March 19.

#### MR. LIVESEY'S REPLY AT THE C.V.S.

Sir,

According to the report of the last meeting of the C.V.S. appearing in your last issue I find that Mr. Livesey made, in his reply, unfavourable comments on the manner in which I spoke of certain remarks made by Mr. Nicholson Almond at a previous meeting of the Society.

If I went beyond the rules of fair criticism and caused annoyance to Mr. Almond or any other member of the Society I now offer him my abject apology and express my profound regret. I am, still, very sorry that I should have wounded Mr. Livesey's tender susceptibilities, but thought that Mr. Almond was quite capable of taking care of himself. In extenuation I regret that Mr. Livesey should not have had the courage to publish his address as delivered instead of suppressing utterances he made behind the backs of those not present.

As to some of Mr. Livesey's assumptions and insinuations reported in the proceedings, I treat them with the contempt they deserve; especially when they were uttered when he well knew that if I had had been present I should not have been entitled to have replied to his reply.—Yours faithfully,

HENRY GRAY.

#### POISONING IN ANIMALS.

Sir,

In the very interesting article on "Poisoning in animals," by Mr. W. R. Davis, in last week's *Veterinary Record*, I observe that the author states that in the "System of Veterinary Medicine," edited by me, no mention is made of diseases due to fungi, which produce symptoms simulating those of foot-and-mouth disease.

If Mr. Davis will kindly refer to page 1309, he will find a full description of "mycotic stomatitis," and the differential diagnosis from foot-and-mouth disease. I admit that the affection in sheep is not specially referred to, the excuse being that at the time of going to press, the details were not available. This matter will, however, receive attention in Vol. 2, and also the "Armagh" Pseudo-foot-and-mouth disease.

I was not aware of the existence in Great Britain of a pseudo-foot-and-mouth disease in lambs, definitely proved to be due to fungi, and shall welcome details of this affection for use in a future edition, if Mr. Davis will kindly favour me with them.—Yours, etc.

E. WALLIS HOARE.

Cork, March 24.

# THE VETERINARY RECORD

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VOL. XXV.

## THE MEETING OF VETERINARY INSPECTORS,

It would be difficult to over-estimate the importance of the meeting of veterinary inspectors which is advertised to take place in London on Monday next. Its objects are two-fold—to discuss the Tuberculosis Order and to consider the formation of a National Association of Veterinary Inspectors. The first is very important, for the Order will be in force within four weeks; and, as the proceedings will include an exposition of its proposed working by Sir Stewart Stockman, the discussion should be most valuable. The second item, in one sense, is even more important, for it affects many other subjects than tuberculosis. If, as seems most likely, the foundation of a National Association of inspectors is decided upon, the step will influence our veterinary inspectorate in every branch of its work.

It is essential that the meeting should be as representative as possible. Every inspector who can manage to attend should do so.

## ANÆSTHESIA.

It is an evidence of progress that "Local and General Anæsthesia" should be included amongst the subjects for discussion at the forthcoming International Veterinary Congress. Many of us can remember the days when but few veterinary surgeons used anæsthetics. To-day, anæsthetisation is so general amongst us that next year's discussion upon it is certain to be rich in results. We shall learn something of various Continental methods which have never been adopted here to any extent—as, for instance, anæsthesia by chloral hydrate, especially by its rectal administration, which is a very common procedure indeed in some European countries. We, on the other hand, may be able to contribute something. If some British authority be asked to prepare a paper, his work will be all the more valuable if he can include some account of the methods most in favour here. This may be difficult in the case of local anæsthesia. Most men practise it—some very often, but we have little idea of general experience regarding the comparative efficacy of the drugs used for the purpose, or the toxicity of the now numerous substitutes for cocaine.

If the subject were discussed by a local society at an early date it might be possible to tap the general experience of practitioners, and the resultant benefit would not be confined to the Congress. Few discussions would be more helpful than a good one upon local anæsthesia, initiated by a man who had made extensive trial of various methods, and we know that we have many such men.

## AN EXPERIENCE WITH ARECOLINE HYDROBROMIDE.

Confirming "Junior's" article *re* the use of Arecoline on a cow, I will relate my experience which is very similar.

Subject, 4-year-old cow, due to calve in a month or so, in good condition, having been fed on clean timothy hay; appeared sick in the morning. Was called in 12 hours later, during which time two pints of linseed oil had been given.

Found patient tympanitic, not so bad as to call for immediate puncturing, with breathing rather distressed, accompanied by the usual symptomatic groan.

I diagnosed the case as one of indigestion. Owing to a sudden cold spell, the animal had been confined to the stable for a few days and had eaten more than usual.

I injected arecoline 1 gr. in solution made from  $\frac{1}{4}$  gr. tablets of the Abbott Alkaloidal Co. Shortly after, was giving drench Mag. Sulph. 1 lb., nux vomica, ginger a.s.  $\frac{3}{4}$ l, when noticing some convulsive movements, I desisted. Animal strained once or twice, tried to jump into manger, and in a couple of minutes fell down, lay there for about a couple more minutes, again strained two or three times, and quietly fell over and died. Having "Junior's" article freshly in mind, I felt I had done it.

Last year I had very alarming symptoms after injecting eserine 1 gr. in a case of milk fever.

I use this same preparation of arecoline very extensively on horses, with most satisfactory results, but my friend the cow, from now on, will have to be satisfied with the more old-fashioned remedies, until I can be enlightened as to my mistake.

ALBERTA.

## COMPLETE LUXATION OF THE SHOULDER-JOINT IN A HORSE,

Becker, of Belgrade, records (*Zietschr. f. Vet.*) a case of this extremely rare lesion. The subject was a horse eleven years old, used in a regiment of field artillery. The animal was being exercised, and was jumped over a wall one metre (about 40 inches) high. During the jump the rider held too firmly to the reins, with the result that the horse, upon landing, fell upon his right shoulder. When he rose, he could only stand upon three legs.

Examination revealed that the right fore limb was shortened, did not reach to the ground, and hung loosely downwards. By palpation, it could be demonstrated that the proximal extremity of the

right humerus was displaced about a hand's breadth upwards and forwards; the direction of the humerus was such as to form an angle of about 70° with the ground. A hand's length above and behind the shoulder-joint was a depression, in which a medium-sized hen's egg could be placed. The patient showed no pain upon pressure of the region, but showed violent pain when the joint was moved. Flexion of the joint was almost suspended, and extension completely so. On the other hand there was abnormal freedom of movement when the limb was abducted or adducted.

An attempt was made to reduce the dislocation then and there. This caused so much pain, and rendered the animal so violent, that it had to be abandoned on account of the danger of another fall. The horse was then walked a distance of 1500 metres (rather more than a mile) to the hospital; and accomplished the journey on three legs in half-an-hour.

A soft bed was prepared; and the horse was given a clyster containing 125 grammes (about 4½ oz.) of Chloral hydrate, 60 grammes (a little over 2oz.) of gum arabic, and 2500 grammes (nearly 4½ pints) of water. Twelve minutes later he lay down upon his left side. He was then bound, and reduction proceeded with.

A rope was fastened round the right forearm close above the carpal joint, and two persons drew upon this with only moderate force backwards and downwards, in the direction of the luxated humerus. After half-a-minute the humerus resumed its normal position with a distinctly audible "jerk," and at the same time the swelling in front of the shoulder joint and the depression behind and above it disappeared. The horse rose with very little assistance as soon as he was unbound; and immediately after rising he bore weight upon the limb for a moment. He then ceased to bear weight upon it, and only touched the ground with his toe.

He was then put into slings, and ice compresses were applied to the shoulder for the first twenty-four hours. Afterwards the shoulder was bathed with warm aluminium acetate solution every two hours for a period of half an hour.

From the fourth day onwards the horse began to attempt to bear weight upon the limb. On the eighth day a weak cantharides blister was applied to the shoulder. On the eleventh day the horse was taken out of the slings, and at midday on the eighteenth day he lay down for the first time, and remained lying till the next morning. After this he lay down frequently.

Four weeks after the accident there was only a moderate degree of lameness in walking, but the limb's power of bearing weight was incomplete.

After treatment for two months, it was decided to sell the horse. The right shoulder-joint was considerably deformed, the movements remained impaired, and a constantly progressive atrophy of the shoulder muscles had appeared. There seemed no prospect, therefore, of the horse being completely restored to service.

The author thinks that a rupture of the muscles could not have occurred, as no hæmorrhage could

be demonstrated, and the previously mentioned depression completely disappeared immediately after the reduction. His opinion is that the deformity of the shoulder joint is probably attributable to rupture of the capsular ligament.—(*Münchener Tier. Woch.*)

#### NEOPLASMS IN THE PREPUCE AND ON THE PENIS OF THE HORSE.

Lingenberg has observed ten of these neoplasms, of which eight (five fibromata, one alveolar melanoma, one medullary carcinoma, and one adenoma) were in the prepuce, and two (both papillary carcinomata) were upon the penis. From his own observations and the existing records of cases seen by others, he draws the following conclusions.

Among the numerous tumours observed on the external part of the prepuce, the benign ones occupy the first place. In the majority of cases they are fibromata or papillomata, which nearly always have a rounded form, are well defined, for the most part are pedunculated, and tend to bleed from their surfaces.

Malignant tumours in this situation are rare. Eight cases in all are described—one lymphosarcoma, one fibro-sarcoma, two melanotic sarcomata, two sarcomata, and two carcinomata. Such tumours are not so clearly defined as the benign ones, and have a tendency to ulcerate.

Neoplasms in the interior of the prepuce are rare. For the most part they are malignant in character. Of the nine cases described, three were fibromata, three carcinomata, one a sarcoma, and one an ulcerated melano-sarcoma. All the tumours which develop in this situation have a large ill-defined base and a surface which is mostly ulcerated, even when the tumour is benign.

Tumours of the penis are almost exclusively malignant. Among the twenty-six cases described only three fibromata are found. The clinical symptoms depend upon the size and situation of the neoplasms. In the case of sarcoma or carcinoma the regional lymphatic glands are transformed into large nodules, which are not very tender. In two cases of carcinoma described by Semmer there was also general metastasis.—(*La Clinica Veterinaria*).

#### NEOPLASMS OF THE MEMBRANA NICTITANS IN THE HORSE.

Puschmann reports fifty-three cases of new growths of the third eyelid of the horse. Only in thirty-seven of these was the diagnosis accurately established by means of a complete examination. Of these thirty-seven, sixteen were carcinomata, five lipomata, five papillomata, four fibromata, one epithelioma, one angioma, and one dermoid.

As a rule these neoplasms were situated upon the anterior surface of the membrana. Sometimes, however, they extended to its posterior aspect also.

The symptoms which these neoplasms produce vary in accordance with the size and characters of the tumour. Small growths (up to the size of a hazel nut) produce lacrymation and slight conjunctivitis. Larger ones generally produce a purulent inflammation of the palpebral conjunctiva. In addi-



tion, the malignant tumours discharge a fetid greasy material of a dirty-yellow colour from their surfaces, and tend to give rise to hæmorrhages.

In isolated cases it was observed that malignant tumours, especially carcinomata, extended to the ocular bulb and destroyed it completely, and finally produced the same effect upon all the adjacent tissues.

In all cases of these new growths, surgical intervention at the earliest possible moment is called for. The tumour alone, or the tumour together with the membrana nictitans, should be removed, using cocaine, novocain, or other similar drugs (to which adrenalin may advantageously be added) as a local anæsthetic. Washing with boric lotion is advised as after-treatment, and recovery takes place in five to eight days.

The author considers that wounds and inflammations of the membrana nictitans act as predisposing causes of tumours.—(*La Clinica Vet.*)

#### PYEMIC ENDOCARDITIS IN A COW.

R. Mosconi reports (*Revista Zootechnica*) the case of a cow which had a difficult parturition, with subsequent retention of the after-birth. She developed metritis, which was treated with injections of sulpho-carbolate of zinc solution.

A few days afterwards lameness appeared, with swelling of the joints, which awakened the suspicion of a general infection with articular localisations.

Cachexia supervened; and the cow was sent to the meadows, where she died.

Post-mortem, the abdominal cavity showed congestion of the liver and kidneys, and endometritis with vegetations of the mucous membrane. The thoracic cavity showed pleural and pericardial effusions.

In the left side of the heart there were some erosions of the endocardium; but the mitral and synovial valves were normal. The principal lesions were found upon the right side of the heart, where the endocardium of the ventricle, and even of the auricle, was covered with new tissue a centimetre (about 2-5th inch) in thickness. The free face of the endocardium showed an exuberant vegetation, which almost completely obstructed the auriculo-ventricular orifice.

The results of both the microscopical examination of the blood and cultural experiments with the blood upon various media, proved that it contained the *Staphylococcus pyogenes albus*.

W. R. C.

#### Local Anæsthesia in Fractures and Dislocations.

Two methods of inducing local anæsthesia in fractures and dislocations of the limbs are discussed by H. Braun (*Deut. Med. Woch.*, January 2nd, 1913). For the arm, the best method is the injection of an anæsthetic, such as novocain-suprarenin, into the brachial plexus as it passes over the first rib. Carried out skilfully, this procedure ensures complete paralysis and anæsthesia of the whole arm; and it is available also for dislocation at the shoulder-joint. The other method is preferable in injuries to the lower limb, and consists of injecting an

anæsthetic directly into the site of the fracture or dislocation. The author uses a 1 per cent. solution of novocain-suprarenin, which he injects after the lesion has been investigated by the X-rays and other methods, and after the skin has been painted with tincture of iodine. The anæsthetic must be injected from several quarters and in many directions; and, when considerable displacement has followed a fracture, the ends of the fractured bone require separate anæsthesia. Similarly, when two bones in a limb are fractured, all four ends may require separate anæsthesia. After a dislocation, the anæsthetic is injected around and into the joint. Anæsthesia soon becomes complete, and the muscles relax as under a general anæsthetic. The beneficial results of the latter are thus attained without that danger to life and struggling which the induction of general anæsthesia provokes.

In the course of a year the author has treated about 50 cases of fracture and dislocation by this method. Many other cases of dislocation of the fingers and compound fracture of the arm were reduced or set after the brachial plexus had been anæsthetised. No accident followed either method, and asepsis was followed by scrupulous cleanliness, and by not introducing the needle through unhealthy skin. A detailed account of two cases of dislocation at the hip are given, as this is a difficult joint to anæsthetise locally, and the test of the method's reliability is in other respects severe. In one case the dislocation was sciatic and recent. A long needle was introduced at two points in the gluteal region, and 25 c.cm. of the anæsthetic were injected over the head of the femur and 20 c.cm. into the acetabulum. The femur being dislocated, it was no longer a guide to the acetabulum, which was therefore sought by introducing the needle immediately behind the anterior superior spine of the ilium. The needle's point was now kept close to the ilium on its course to the acetabulum, and an innominate bone was held by the patient's side to act as a further guide. When the acetabulum was reached a small quantity of blood was aspirated. The injection was almost immediately followed by relaxation of the previously rigid muscles, and in ten minutes reduction of the dislocation was easily effected. The patient experienced no pain during the reduction, and the only source of discomfort was the tight grip of the operator's hands. In the second case an obturator dislocation had lasted forty-eight hours; 20 c.cm. of the anæsthetic were injected about the head of the femur, which was palpable below the adductor muscles. The acetabulum was reached by the same route as in the first case, and in a few minutes the limb was relaxed. There was, however, still some pain in the region of the great trochanter, and 10 c.cm. of the anæsthetic were accordingly injected around the bone from the outer aspect of the thigh. Five minutes later, anæsthesia was complete, and the dislocation was reduced at the first attempt.—*B. M. J.*

#### A Farrier Sued for Damages.

A case of very great importance to Farriers was heard in the Shoreditch (London) County Court on Feb. 18th, before his Honour Judge Clure. Mr. W. Bradbrook, a cartage contractor, of Cambridge Heath, claimed damages from Mr. W. E. Bowes, R.S.S., of Coventry Street, Bethnal Green, for alleged negligence in shoeing a horse.

Plaintiff was represented by Mr. Doughty, and defendant by Mr. Freeman Barrett.

Counsel for the plaintiff said that the exact date of the shoeing of the horse in question was not known, but about a fortnight after being shod, the animal went lame. The defendant took it to his forge and cut the foot out, put the shoe on again and sent it back to the stable. A

day or two later defendant was again called to see the horse, he took the shoe off and cut a piece about the size of a sixpence near a nail hole and some pus came out. This was about the middle of June. The horse did not improve and plaintiff called in Mr. Gordon, M.R.C.V.S., who found the traces of two nails having been driven into the sensitive part of the foot. Defendant must have known of this because he or his man had evidently withdrawn one of the nails when he found that it was in the wrong place, and had driven in another one, which also penetrated the sensitive part. This was what constituted the negligence, because defendant should have told plaintiff what had happened, and antiseptics could have been applied which would have prevented the animal being lame for such a length of time. The claim was for £90 16s., and was made up of £35 depreciation in value, £2 2s. per week for loss sustained while the animal was unfit for work, veterinary surgeon's fees, etc.

A. Bradbrook, son of the plaintiff, was called and bore out counsel's statement. He said he took the shoe off himself when he found the horse lame.

In answer to Mr. Barrett, witness said that the horse was now a little better but the wound in the foot was still oozing a little. He did not have any conversation with Mr. Bowes after the horse came back.

Mr. G. Gordon, M.R.C.V.S., said he was called in by plaintiff about the middle of June to see the horse. He found that the foot had been searched and there was pus at the inside by the heel nail. The foot was very sore and he removed a piece of the wall opposite the heel nail. In doing so he found the tracks of two nails having penetrated the horny laminae about an inch. One had evidently been driven in and withdrawn and another one driven in and left there, both of which had entered an inch into the sensitive laminae. The farrier must have known of this, seeing that he withdrew one of the nails. If an antiseptic had been applied at the time no very bad results would have followed. From the appearance of the foot he thought that the injury must have taken place about a fortnight previously. The horse would be worth £45 before it was lame and had depreciated £35 since.

In answer to Mr. Barrett, Mr. Gordon said that the wound was not quite dry yet, but the horse walked fairly well. A horse usually showed lameness in two or three days after being "pricked." He agreed that there were many things besides pricking which would cause pus to form in a horse's foot, such as the shoe being displaced by the animal treading on it, etc. The presence of pus in the foot did not prove pricking. Necrosis of the tissues would take place from any injury whether it was by pricking or otherwise, but from the appearance of the foot he was of opinion that pricking was the cause of the trouble. He admitted that all farriers were liable to prick horses, and he would not blame them as nails had nearly always to be driven within a sixteenth of an inch of the sensitive laminae. This animal had slightly "itchy" legs and might stamp, thus causing a slight displacement of the shoe.

William Bradbrook, the plaintiff, gave corroborative evidence as to the value of the horse and the time it had been unable to work. He put down his loss at £92 2s. per week, because this animal was one of a pair and he had to leave the other one idle as well. This animal was so valuable to him as a worker that he would not sell it, and he would not work it because the police might stop him.

His Honour pointed out that he (plaintiff) could not recover damages for the cost of the horse's keep for so long a period. "You might keep it for ten years," said his Honour, "and claim for the whole of the time." The proper course would have been to sell the animal for what it would bring and claim for the difference in value.

William Field, who assisted Mr. Gordon with the operation on the foot, said he was of opinion the injury was caused by "pricking."

In answer to Mr. Barrett, he said that he was employed by the same firm as Mr. Gordon. The farriers shop in which he was foreman was only about half-a-mile from defendant's shop, and close to plaintiff's stables. Horses were sometimes pricked at his place, but they always applied dressing when it happened. This concluded the plaintiff's case.

The defendant, W. E. Bowes, R.S.S., was called, and in answer to Mr. Barrett, said that he had shod horses for plaintiff for about two years. He could not keep any record of the date on which any particular horse was shod, as they had neither names nor numbers. He called at plaintiff's stable about 4.30 one morning about the middle of June and found this horse lame and with the shoe off the near hind foot. He took it to his forge and searched the foot carefully all over, but could find nothing to account for the lameness. His man nailed the shoe on again and he sent the horse back. Four days afterwards plaintiff sent for him to come to see the animal in the stable. He went, took the shoe off and again searched the foot. In doing so he found some pus at the inside heel, which he liberated and left the shoe off, bringing it away with him. The shoe produced was the one he took off and it had evidently been worn about three weeks. He did not hear any more about it until the 3rd of July, when plaintiff told him that he had called in a veterinary surgeon who said that the horse had been "pricked" with two nails. He told plaintiff that it could not have been "pricked" as it had been working for three weeks before going lame. A few days after this he asked for permission to have the horse examined by a veterinary surgeon, but plaintiff's son said he could not give permission as his father was away from home.

In answer to Mr. Doughty, he said that he did not nail shoes on himself, they were nailed on by his man, and he (Bowes) made the shoes and fitted them. If this horse had been "pricked" as badly as was alleged, the man would have known at the time, because the horse would have snatched his foot away.

Frank Attwood, doorman, employed by defendant, gave corroborative evidence. He remembered assisting at the searching of the foot and finding nothing to cause lameness, and he nailed the shoe on again. The horse did not flinch when he did so.

Cross-examined by Mr. Doughty, he said that he did not "prick" the horse; if he had done so, and it was as severe as had been stated, the horse would have flinched and gone lame at once.

H. W. Caton, M.R.C.V.S., veterinary surgeon to the Stepney Borough Council, etc., said he examined the horse on August 20. It was aged and would be worth between £20 and £30 if sound. He could not say what was the cause of the injury as it was too long after the occurrence when he saw it. He was of opinion that no horse could work for a fortnight or three weeks with a nail penetrating the sensitive laminae. Lameness generally took place in three or four days after an injury such as Mr. Gordon described. There were many ways in which the foot could have been injured and the same result produced. The shoe might have been trod on and displaced, and afterwards forced back on to the foot, or it might have got twisted by stamping or being caught in the tram-lines. Any of these was more likely to have caused the injury some time just previous to the lameness appearing.

Mr. Frank Somers, Veterinary Surgeon of Leeds, said he examined the aged brown cart mare on Sept. 5 at Bethnal Green, in company with Mr. Gordon, veterinary surgeon, the plaintiff's professional adviser, and he found the mare was lame on the near hind leg—a large portion of the hoof on the inside quarter having

been cut away over the site of the alleged "prick." It was quite impossible to say at that time what had caused the mischief. Such an amount of inflammatory action has taken place as to destroy all traces of the prime cause, and suppurative of the parts surrounding followed by necrosis of the tissues involving a large area of the inside hoof. There were many causes that would bring about such conditions; a "prick" from a gathered nail during work, or a partial casting of the shoe when the animal would force the nails into the hoof by treading heavily upon them, or suppurative from bruised heel, or from a "tread," and other causes. If an animal was "pricked" during shoeing, lameness as a consequence would certainly show before a period of three weeks—the usual time would be about six or seven days after. The value of the animal would be about £25. Injuries to the foot were every day occurrences, and if properly attended, generally responded to treatment in a week or two.

Examined by Mr. Freeman Barrett: Having heard the evidence of Mr. Caton, do you agree with him?

Mr. Somers: Certainly!

By Judge Clure: What would be the indications shown by the mare, assuming she had been "pricked" by shoeing?

Mr. Somers: Lameness would follow in a few days, or even later in exceptional cases; when the shoe would require removing, the sole paring, the nail hole tracing, and treatment by poulticing.

Judge Clure: If the wall of the foot was "thin," would an animal be more likely to be "pricked" than if the wall was thick?

Mr. Somers: Yes, there would be more likelihood.

Mr. W. Jones Anstey, Lecturer in Farriery to Leeds University and Manchester Technical School, examined by Mr. Freeman Barrett, said he had had 50 years experience. He had seen the horse in question and did not wish to contradict Mr. Gordon, but was of opinion he was mistaken. He could not at the time he saw it say it was not "pricked," but from the appearance of the foot it had crushed the heel and the pus had travelled upwards and forward, and the bit of horn broken off at the heel went to prove that. The wall was exceedingly thin—much more so than usual—and in consequence more difficult to shoe. It was a fact that hundreds of horses were continually being pricked with a nail and no evil results followed as a rule. If the farrier knew he had done it, he took remedial measures; it was when he did not know, that trouble came.

In answer to his Honour, Mr. Anstey said, with an itchy legged horse, shoeing was much more difficult, and the danger was greater because it was difficult sometimes to tell whether a nail was hurting or not; and if this horse had, as Mr. Gordon said, been "pricked" in two places and that the nail had penetrated an inch, he would have been very lame the next morning and would certainly not have gone a fortnight before showing signs of lameness; and it was usual for pus to be found within a week. He quite agreed that lameness might have been caused by the horse stamping the shoe loose and treading on it, or twisting the nails and pressing on laminae. The wall of this hoof was so thin that the nail would be very close to the sensitive part. In the very best hoof the wall was not half-an-inch thick, frequently very much less.

Professor Hobday, F.R.C.V.S., agreed with the evidence of Messrs. Caton, Somers, and Anstey as to the impossibility of a horse going sound for a fortnight or three weeks with a nail penetrating the laminae. He also agreed that there were many more probable causes of the lameness, and said that it was a frequent occurrence for a horse to injure itself by having the shoe displaced and afterwards forcing the nails into the laminae by putting its weight on the foot.

Mr. Freeman Barrett, for the defence, stated that he approached the case with a certain amount of anxiety, as it was a serious case for his client, after long years of arduous work as a shoeing smith to be charged with "pricking," but he ventured to state that, having heard the whole of the evidence on both sides, there was overwhelming evidence for the defendants—that the injuries sustained by the plaintiff's mare probably arose from a "prick" or "stab" but not associated with the shoeing. His Honour would remember that it was some three weeks after the shoeing before the mare showed any indications of lameness, and the plaintiffs, both father and son, had only a hazy recollection of the dates—they were very uncertain and had kept no records. Mr. Gordon, veterinary surgeon, who was called in by the plaintiff, had treated the mare and he had not called the shoeing smith's attention to this animal at once, although there was every opportunity to do so if the mare had been "pricked" during shoeing. All the witnesses for the defence had stated that the mare would have shown lameness in about a week. In analysing the whole of the evidence and in pointing out that Mr. Gordon had stated that he had traced the nail holes and found two places on the inside where the animal had been "pricked," such "prick" had been proved might have arisen from other causes. Taking, then, the whole of the evidence for the plaintiff, he maintained that no negligence and no "prick" from shoeing had been established to produce the long continual lameness to this unfortunate mare. He would contrast the evidence of the plaintiff with the unshaken evidence of the defendant's witnesses, who all agreed that the inflammatory condition of this mare's foot followed by "necrosis" of some months' duration might arise from a variety of causes. Then how could it be brought home to the defendant. The defendant was a man of some years' standing, and it would be absolutely necessary to associate "negligence" with his work in order to prove the case for the plaintiff. Such had not been done, and he left the issues of this important trial with the utmost confidence to his Honour, being assured that the plaintiff had not in law established his case.

Mr. C. Doughty, for the plaintiff, said that he did not suggest that the mere "pricking" of a horse by a farrier was negligence. The negligence lay in the fact that the defendant undoubtedly knew at the time of the shoeing that the foot was injured, because there was evidence that there were tracks of two nails having penetrated the sensitive structure. One of them had been withdrawn and another nail driven in and left in. He ought to have informed plaintiff of this and applied some antiseptic, but this was not done and the protracted lameness was the result. On this point his client was entitled to a verdict.

His Honour said that the plaintiff had failed to satisfy him that the injury had been caused at the time of the shoeing, especially as it was admitted that there was no sign of lameness for 17 days. Plaintiff had also entirely failed to prove negligence, and there would be a verdict for defendant, with costs.—*The Farriers' Journal*.

#### Charge of Cruelty to Sea Lions.

The defendants were Andrea Pedersen, and Herbert Jackson, the first a trainer of sea lions, and the second a keeper in the service of Messrs. Sanger and Son.

The charge was one of ill-treating four sea lions, or in the language of the summons, omitting to do certain acts—that is to say, by failing to give them the necessary care and attention, while in a state of captivity, and caused unnecessary suffering to certain animals, to wit, four sea lions, contrary to the statute.

Mr. G. W. Haines appeared for the Royal Society for the Prevention of Cruelty to Animals, and Mr. Kutly Mowll of Dover, for the defendants.

Mr. Haines outlined the case, which, he explained, was one of animals taken away from their natural state and condition. Those four sea lions were the property of Messrs. Sanger and Co., and they were carried here and there into the country, especially to provide entertainment for the public. The sea lions went on to the stage, and performed very cleverly indeed, and there was no doubt as to their high state of training. They did not suggest that there was anything cruel in putting them through the performances and there was no reflection that it caused them any suffering. But he should show that there were sores on the animals which were very sensitive to the touch, showing that they were caused pain and suffering. The animals measured, he believed, from 4ft. 6in. to 5ft. from the tip, and they were placed in a tank which was only 6ft 6in. long, 4ft. 6in. wide, and 3ft. deep, and what they said was that the four animals must suffer by being placed in such a confined space and that it could not conduce to their health, and by reason of that confinement they got into a diseased condition, that they got sores on their bodies, and that the rubbing against the tank, the cage and the stage, caused them unnecessary suffering. Having referred to the state of the sores, and to what treatment they received, Mr. Haines called evidence in support of his opening remarks.

Inspector Bennett, of the Royal Society, was the first witness. He said on the 13th January he attended a place of entertainment in company with P.C. Cox at 10.30 in the evening, and saw the performances of four sea lions. He sat in the upper boxes or gallery, where he could see what was going on, and had a clear view of the sea lions. The condition of the animals appeared to be good. There were red, raw places upon them, which appeared to be very tender, and they appeared to flinch when they came into contact with any hard substance during their performance. They performed on a sort of box raised from the stage. One part of the performance was the climbing up on to the box to get on to the top. In consequence of what he saw he went round to the back of the stage, and saw Pedersen and told him who he was and that he desired to see the sea lions. He had seen sores about the bodies and asked for an explanation. He replied, "I think it is skin disease; you had better see the manager, Mr. Jackson." He then saw Mr. Jackson, and told him the animals appeared to be covered with sores and he admitted that it was so. He saw the cage and the tank in which the sea lions were kept. (A rough sketch of the box, etc. not drawn to scale, was put in by Mr. Mowll and the witness admitted that it was correct). Witness continued that he examined the animals and the sores upon them. Some were red raw and others were healed over with scales, dry. The sores varied in size from that of a sixpence to the palm of his hand. He should say there were about two dozen. The largest sea lion appeared to be the greatest sufferer. There was not any blood. He touched one of the sores, and the animal flinched. He measured the tank, which he made 6ft. 6in. long and 4ft. 6in. wide, and the depth was 3ft. It was made of zinc. There were projections, flanges, and studs in it. The conclusion he came to was that the animals rubbed themselves against the sides and thus caused the sores.

In cross-examination by Mr. Mowll, witness said he was aware that the animals had been exhibited all over the country, in towns where the Society had Inspectors. He supposed if they had not been in a normal condition of health, the inspectors would have reported it. He personally had had no previous experience of sea lions.

Mr. Mowll said that the two larger animals had been measured. One was 3ft. 7in., and the other 3ft. 3in. long.

Inspector Adams said he went to the Gaiety Theatre, Hastings, in the evening, and witnessed four sea lions taking part in the performance. He noticed raw places on the bodies of all the animals. When a ring thrown over the head of one of the animals rested on a sore place, the animal flinched as if in pain. Witness saw the animals afterwards at the back of the stage. There were sores all over the bodies. They were not dry sores. On the Sunday before they left, witness saw the animals again, and then the sores had scabs. On the Thursday most of the sores appeared to be raw. Witness saw Mr. Jackson, who said he thought the animals must have some skin disease or eczema. He saw the animals again on the following day (Friday), and he came to the conclusion that there was not room for the animals in the tank.

Mr. Henry B. Eve, veterinary surgeon, of Folkestone, said at the request of the Inspector of the Royal Society, he examined the four sea lions. They were in a cage. They were in very good condition, but were suffering from a skin disease. All four were more or less affected, and he saw the sores upon them. He formed the opinion that they were suffering from eczema—a sort of cutaneous eruption. In some, the sores were covered with scab, and there was a certain amount of peeling of the sores. Under the circumstances he did not consider the animals were receiving fair and proper treatment, and the sores coming in contact with the wire netting of the cage, the pain would be intensified. The circular patches were, in his opinion, due to vesicular ringworm. The rest of the lesions were due to eczema.

Cross-examined by Mr. Mowll, witness said he saw the animals on the 14th of January. He did not say to the men in charge, "You must take these animals away." It was not his place to do so.

Mr. Mowll: But you would not allow people to go on causing suffering to animals, would you?—That is quite apart from a veterinary surgeon's duty.

Did you say the sores were caused by the roughness of the tank?—No. I said the sores were the outcome of disease contributed to by the size of the tank.

What you really mean to say is that the animals having skin disease, the condition of the tank made them worse?—Certainly.

Did you consider those patches were raw?—No, they were red.

Mr. Alfred Piesse, veterinary surgeon, said he was at Folkestone, and saw the performance in the Theatre. He examined the sea lions, and saw the condition in which they were. They were in excellent bodily condition—two males and two females. He found a number of sores on the body. They were covered with a sort of veneer or scab and underneath he saw the redness. He formed the opinion that they rubbed themselves. The sores were of different shapes.

In reply to Mr. Mowll, witness said he had had no experience with sea lions before. The cage did not appear to him to be of adequate size. The performance they went through must have brought some of the sores into contact with the stage. One of them balanced a billiard cue, and had to hold its head upwards.

In answer to the Clerk, the witness said the animal moved its body as if it was in a state of irritation.

In further answer to Mr. Mowll, he said he did not diagnose ringworm, but simply eczema. It would after a time become weeping eczema. He did not see any raw sores.

Lady Sarah Lumb said on the 15th January she went to the Pleasure Garden Theatre, and saw the four sea lions. She saw the sores upon them with her naked eye, and afterwards with her opera glasses. She saw that one animal had sores on its neck, and the trainer tossed a paper collar on to it.

## THE DEFENCE.

Mr. Mowll, in addressing the magistrates on behalf of the defendants, said he would like to say at once that he drew no distinction between the two things—the causing of bodily suffering and express cruelty. To his mind, they, were exactly the same, and if his clients had been guilty of causing unnecessary suffering they had been guilty of cruelty to those sea lions. What did the bench think was the value of them? They were purchased about four years ago from the celebrated Hamburg dealer, Herr Hachenberg, at a cost of upwards of £1000. That was the value Messrs. Sanger paid for those four sea lions, to which they were charged with causing unnecessary suffering. He only mentioned that to them to show the great value of the animals, and he asked them, as men of common sense, whether they thought it likely that such value as that would be jeopardised in the manner that it had been put forward in that case. He desired to impress upon the bench that for two and a half years the animals had been carried about the country under exactly similar conditions, and never before had there been any complaints whatever. The bench must bear in mind that up to that point they had been examining witnesses who, by their own admission, were all more or less amateurs on this subject. Then with regard to the disease—the patches of sores which had been spoken of. They first began with little pimples at the back of the neck of one of them. One animal developed it on one day, and he thought another took it the day after. It was quite true that if the animals had been separated, perhaps the other three would not have taken the disease from the one that developed it first. But there was this difficulty with animals in captivity, accustomed to congregate together. If one had been taken out and put away from the others, the possibility was that the animal separated, would have set up a great bellowing and not only prevented itself from getting any rest, but also everybody else, and very probably have been starved to death. Therefore there was good reason for not separating them when the disease first developed.

Anders Pedersen, a Dane, said he had been in the employ of Messrs. Sanger for two years and four months. He had been previously in the service of Mr. Hagenbach, the well-known importer of animals, of Hamburg, with the same sea lions as were referred to in that case. They were entirely taught to do those tricks by being given fish as a reward, and they had over 100lbs. of fresh fish every day. The heads of the fish were taken off and they were gutted, and passed through three lots of water, including one of high temperature, the latter to get rid of any traces of ice. The fish were whitening and herrings, and they were fresh every day. The water in the tank was fresh every day, and once a week salt was put in it. The sea lions did not sleep in the water, but on a raised platform. It was their habit to congregate together. The door which led from the sleeping apartment to the tank was kept open all day, but was kept closed at night. There was no top to the sleeping cage. Generally, for the sake of warmth, he put canvas round the sides of the cage, and in cold weather also on the top. During the four years he had had charge of the sea lions, they had been taken round to the principal towns in the same way as at Folkestone. Sleeping arrangements had always been on the same lines as they were now. He first noticed the irregularity in the flesh of the animals on the Tuesday of the second week of the tour. They went first to Eastbourne, then to Hastings, and then to Folkestone. They had two weeks at Eastbourne, one at Hastings, and one at Folkestone. The disease came first as little pimples, on the neck, the front of the back and on the top side. "Hansy" first developed it—a female; then "Tommy" the next day; then "Jacky" and then "Ponto." Witness described

what steps were taken to cure the disease. The sores were red, but never raw and never bled, and they soon were covered with a thin sort of covering. At Hastings, at the suggestion of the inspector, they put on black sulphur, which they carried with them for use on the camels. At Folkestone Mr. Eve suggested that they should not feed the sea lions with herrings, and they did not. The spots were at their worst at Hastings. He tested the places by putting his hand upon them and the animals did not flinch. He was quite sure of that. Therefore there was no pain.

The Chairman said he would like to get from witness how they travelled from place to place.

Witness said they travelled in two boxes. They did not separate them.

The Chairman: What sort of boxes are they?

Witness: Wooden boxes with wire on the top and sides.

The Chairman: What is the size of the box?

It was demonstrated that the boxes were 4ft. 6½ in. in length, 3ft. 6 in. wide, and 2ft. 10½ in. deep. The animals travelled by road and rail in those and without water.

Witness said the animals were now practically quite well at Horley and the hair was growing on the once bald spots. They never seemed to show any trace of pain while they were performing and were always anxious to do their tricks.

Witness was cross-examined at considerable length.

Herbert Jackson, another employee of Messrs. Sanger residing at Horley, who was also with the sea lions on their tour, also gave evidence similar to that of Pedersen.

Prof. George Henry Woodbridge, consulting veterinary surgeon to the Zoological Society, London, said he saw the sea lions at Horley, on February 11th. He saw their quarters, and also the actual cage and tank which they had been using at Folkestone. He considered that the accommodation of the tank was ample. The superficial area of the cage was sixty square feet, which was more than sufficient for the needs of the animals, especially considering that they were taken out for daily exercise. When witness saw them they were in excellent bodily condition, but affected with bald patches generally circular in shape. They were bald patches only. Witness examined them very closely, and he was unable to find any traces of skin disease. The condition was obviously what followed ringworm. Fine hair was making its appearance on the surface of the patches. There were no signs of soreness. When an animal had a sore place the memory of that soreness lasted a long time. Therefore, if a person touched the spot it would flinch, even when there was no more soreness. He concluded that there had been no pain to the animals, from the way he handled them when he saw them. Witness saw the animals go through the performance, which they did unhesitatingly. A peculiar thing about the skin of the sea lion was its translucence. One could see the flesh beneath it when the hair was gone.

Mr. Herbert Tyrwhitt Drake, of Cobtree Hall, near Maidstone, said he had a large collection of wild animals—the largest private collection but one in the kingdom. He had seen the animals referred to in that case on several occasions—the first time when they arrived from Hamburg. He had seen the tank and the cage in which they were kept. He had carefully examined the animals and they were in excellent condition. The animals belonging to Messrs. Sanger had every care and attention.

Cross-examined, he saw the sea lions on Monday, Tuesday, and Wednesday of that week, and they were in good health.

Mr. Walder, veterinary surgeon, of Horley, who attended the animals of Messrs. Sanger at the Menagerie there, said he saw the sea lions before they left to join the pantomime, and they were in good condition, and



there was no sign of disease whatever. He had seen them since they returned. He found they had been suffering from some skin disease, and in spots they were denuded of hair. Some of the patches had the hair just coming through. In his opinion, the patches were caused by ringworm.

The Bench retired, and on their return the Chairman said: We have had a long inquiry into this case. No one supposes that it was a case of wanton cruelty—it is a matter of simply unlawfully omitting to do certain acts. We have heard the evidence, and we have come to the conclusion that it would not be safe to convict in this case. The case is dismissed.

At the suggestion of the Clerk, the Chairman added: We think the Society was perfectly justified in bringing the case forward.

Mr. Haines asked for the Society's costs to be remitted.

The Chairman: We remit the costs.—*Folkstone Express*.

#### **Alleged Cruelty on the Railway.**

At Stafford, on Thursday, March 13th, John F. Owen, dealer, of the Ferns, Prestwood Road, Heath Town, Wolverhampton, was summoned, at the instance of the R.S.P.C.A., for cruelty to a number of cows by permitting them to be carried on the railway while they were in a state of infirmity and fatigue. Richard Clarence Hall, butcher and dealer, of 60 Bilston Road, Wolverhampton, was summoned for a similar offence.

The North Staffordshire Railway Co. was summoned for carrying the cows in the state in which they were alleged to be.

Mr. A. E. Ashmall prosecuted, Mr. S. A. Burne (barrister) appeared for the North Staffordshire Railway Co., and Mr. W. A. Foster (Wolverhampton) represented Owen and Hall.

Mr. Ashmall said that on Wednesday, the 5th Feb., Hall and Owen attended Uttoxeter Market, and between them purchased eleven cattle—Hall six and Owen five. They drove them to Uttoxeter station, and placed the cattle in one truck 15ft. 6in. long, and 7ft. 6in. wide. When they arrived at Norton Bridge, *via* Stoke, on the way to Wolverhampton, Frederick Crewe, a brakeman in the employ of the London and North Western Railway, who took over the North Staffordshire goods train on which the cattle were being carried, noticed that one of the animals was down. At Salop Junction, Stafford, several of them were down, and when the cattle arrived in Stafford goods yard two were found to be dead and four others were in a dying condition. The other five were in a very exhausted and emaciated state, and with great difficulty were driven out of the truck into a pen. The four found in a dying condition were shot by Mr. Carless, veterinary surgeon. Altogether, the whole of the cattle were in a most deplorable and wretched state. Five of the dead beasts were found to be suffering from tuberculosis.

Cross-examined by Mr. Foster, the brakeman Crewe said that at Norton Bridge the cow which was down got up when he knocked the truck.

Police-Inspector Adlem said that when he visited the truck he found that one of the dead animals had given birth to a dead calf. Hall said: "We have paid over £100 for the cattle. The railway company or someone will have to pay for this." Owen remarked, "The cattle were all healthy; we paid enough for them."

Mr. Carless, veterinary surgeon, said the two cows which were dead on arrival at Stafford appeared to have been suffocated by the others. The cattle he made a post-mortem on all had food in the stomach.

In answer to Mr. Foster, witness said it was a fact that 35 per cent. of adult cattle in the country suffered from tuberculosis.

Inspector Waters, R.S.P.C.A., in answer to Mr. Foster, admitted that the condition of the cattle might have been due to excessive shunting and to being on the line a long time.

For Owen and Hall, Mr. Foster submitted at the close of the evidence against them that he had no case to answer, because no witness had been called from Uttoxeter to show the condition of the animals when they were put in the truck. The responsibility of putting these cattle in the truck rested with the railway company.

The magistrates decided that the case must proceed. Mr. Foster said the cattle showed no signs of fatigue when they were loaded. They went a circuitous route, and were a long time on the way.

Hall gave evidence, and said that at the time he purchased the cattle there was nothing to indicate they were suffering from tuberculosis.

Cross-examined, he said he gave an average of between £7 and £8 for them. He denied that they were "screws." He considered that the cows had plenty of room in the truck. He expected that they would be forwarded direct to Wolverhampton instead of going round by Stoke.

Re-examined, witness stated that the cattle were loaded under the supervision of the stationmaster.

The man who took the animals to the railway station admitted in reply to Mr. Ashmall that some of them were what were called "screw" cattle.

The stationmaster and goods agent (Mr. J. G. Williams) at Uttoxeter said the cattle were fit to travel, or he should not have allowed them to go. They could have put twelve fat cattle in this particular truck.

Joseph Hudson Bates, veterinary surgeon, Wolverhampton, gave it as his opinion that the cattle were fit to travel.

The Bench convicted both Owen and Hall, and fined each of them £5 and £4 17s. 8d. costs, or one month's imprisonment.

On the application of Mr. Foster the Bench agreed to state a case.

The summons against the North Staffordshire Railway was afterwards heard, and ended in the company being fined £10, and £2 11s. 7d. costs.

The Bench agreed to state a case.

Mr. Burne (counsel for the defendants) submitted that the prosecution had not called any evidence to show that the cattle were not fit to travel when they were despatched from Uttoxeter to Wolverhampton.—*Express and Star* (Stafford).

#### **A Striped Donkey.**

At a scientific meeting of the Zoological Society on Tuesday evening, March 4th, the Secretary exhibited on the screen, a photograph which he had received from a correspondent in West Africa, of a curiously striped donkey. The animal had not only some transverse stripes on the legs and on the body, like those of the zebra, but also longitudinal stripes on the sides, unlike anything that occurs in the zebra. The possibility of a hybrid parentage naturally presented itself, but there were no zebras in the district where the donkey was reared and no evidence of any cross breeding of any kind. Mr. Pocock suggested that it might be a case of atavism, the sudden appearance of markings that existed in the remote ancestors of the common ass, although it was not known that those ancestors were striped, and, in fact, a slight degree of striping was more common in young horses than in donkeys. The coloration of the specimen, assuming that it was really genuine, was different from anything previously recorded in the domestic ass.—*Horse and Hound*.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Outbreaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
GR. BRITAIN.													
Week ended Mar. 29	16		16				10	27	70	133	5	59	1057
Corresponding week in	1912	22					4	10	62	123	4	66	958
	1911	17					4	5			5	51	518
	1910		37	58			6	17			10	16	116
Total for 13 weeks, 1913	174		191				49	141	1009	2137	105	467	5819
Corresponding period in	1912	326		357			46	103	1526	3561	144	790	9808
	1911	261		301	1	18	52	184			280	513	5731
	1910		405	498			93	259			283	297	2210

† Counties affected, animals attacked: Durham 1, London 16, Stafford 1, Surrey 1, York, West Riding 7.  
Board of Agriculture and Fisheries, April 1, 1913.

IRELAND. Week ended March 29	...	...	...	...	...	...	...	...	Outbreaks 3	11	1	2
Corresponding Week in	1912	...	...	...	...	...	...	...	...	7	8	87
	1911	...	...	...	...	...	...	...	4	5	3	9
	1910	...	...	...	...	...	...	...	1	11	0	...
Total for 13 weeks, 1912	...	...	...	...	...	...	...	...	74	210	38	200
Corresponding period in	1912	...	1	1	...	...	...	...	27	208	52	413
	1911	...	3	3	...	...	1	1	33	202	35	666
	1910	...	4	6	...	...	...	...	23	254	11	297

† These figures include animals slaughtered and found affected on post-mortem examination.  
Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, March 31, 1913  
NOTE.—The figures for the Current Year are approximate only. As Diseased or Exposed to Infection

## A Provincial Sessional Meeting R.S.I.

Will be held on Friday, April 25th, in the Council Chamber, County Council Buildings, Stafford, at 7.30 p.m., when a discussion will take place on "The Milk and Dairies Bill," to be opened by GEORGE REID, M.D., D.P.H., County M.O.H. Staffordshire C.C.

It is hoped that the following will take part in the discussion:

Sir RICHARD COOPER, Bart., Staffordshire C.C.  
J. Q. LAMB, Staffordshire C.C.  
G. H. FOSBROKE, D.P.H., Worcestershire C.C.  
T. W. H. GARSTANG, M.R.C.S., D.P.H., Altrincham.  
A. HOLBURN, M.R.C.V.S., Congleton.  
G. PETGRAVE JOHNSON, M.D., D.P.H., Stoke-on-Trent.  
A. B. MACMASTER, M.D., D.P.H., Crewe.  
J. MALCOLM, M.R.C.V.S., Birmingham.  
THOMAS ORR, M.D., D.P.H., Shrewsbury.  
H. PECK, M.D., D.P.H., Chesterfield.  
T. ROBINSON, M.R.C.S., D.P.H., Leicestershire C.C.  
JAMES WHEATLEY, M.D., D.P.H., Shropshire C.C.  
MEREDITH YOUNG, M.D., D.P.H., Cheshire C.C.

The Chair will be taken at 7.30 p.m., by LOUIS C. PARKES, M.D., D.P.H., Deputy Chairman of the Council of the Institute.

Tickets for admission of visitors on application to Dr. GEORGE REID, County Council Offices, Stafford, who is kindly acting as the Local Hon. Secretary of the meeting; and of E. WHITE WALLIS, Secretary, 90 Buckingham Palace Road, S.W.

Those proposing to attend and take part in the discussion, can obtain a copy of the paper to be read, on

on application to the Secretary of the Institute, three days before the meeting.

Saturday, April 26th, 9.45 a.m.—Meet at the Swan Hotel; by brakes to Messrs. Siemens' Electrical Works. 12 noon.—Leave the Works for the Corporation Street School. Description and practical demonstration of the Ventilation of the Staffordshire Type of School, Dr. G. Reid, at 12.15 p.m. 1.15 p.m.—Leave for Swan Hotel; where the Members will be entertained at Luncheon by His Worship the Mayor of Stafford (Charles W. Miller), and the Corporation.

Brakes—1/6 each person for the return journeys.

Those wishing to be present at the Lunch and the visits must notify Dr. GEORGE REID, C.C. Offices, Stafford, or the Secretary of the Institute, not later than April 18th.

## "Kipling Cotes Derby."

This takes place every year on the third Thursday in March in East Yorkshire. For 250 years this event has been held without a break. The starting-post, a stone one, is at Etton, near Hull) where are the Holderness kennels) and the course, which is on the grass on the side of the high road, passes through the parishes of Dalton Holme, Lund, and Goodmanham, finishing in the parish of Middleton-on-the-Wolds, a distance of four miles from the start. Under the terms of the bequest, the entrance fees go to the second horse, so there have been instances where the first horse did not get the best share of the stakes, which are drawn from invested funds. The event is a sporting one, and is largely attended locally.—Horse and Hound.



# NATIONAL VETERINARY MEDICAL ASSOCIATION.

## SCOTTISH BRANCH.

DEAR SIR,—I have pleasure in enclosing a statement of the receipts and expenditure of the Committee appointed for the purpose of effecting the Union of the Local Societies with the National Veterinary Association. I would be glad if you would publish the statement.—Yours truly,

A. GOFTON,  
Hon. Sec. of the Committee.  
Royal (Dick) Veterinary College,  
Edinburgh, March, 1913.

## AFFILIATION COMMITTEE NATIONAL VETERINARY MEDICAL ASSOCIATION.

Receipts.		£	s.	d.
Amount previously acknowledged,				
<i>The Veterinary Record</i> , Feb. 11, 1911		30	19	6
1911. March 7.—Central V.M.A. (Ireland)		2	2	0
		£33	1	6
Expenditure.		£	s.	d.
Stationery	...	1	12	0
Printing	...	14	13	4
Hire of Rooms and Expenses of meetings	...	2	2	0
Postages and Telegrams	...	5	11	3
Bank Commission on Cheques	...	1	9	
Chairman's Travelling Expenses	...	2	2	0
Balance handed to Treas. National V.M.A.		6	19	2
		£33	1	6

We have audited these accounts and found same to be correct,  
ARCHIBALD BAIRD, M.R.C.V.S.  
D. S. DAVIDSON, M.R.C.V.S.  
Edinburgh, March 10th, 1913.

## PARLIAMENTARY.

### MILK AND DAIRIES BILL.

In the House of Commons on Friday, March 28.  
Mr. BURNS (Battersea) brought in a Bill to make better provision with respect to the sale of milk and the regulation of dairies. The Bill was read a first time.  
Tuesday, April 1.

### THE MILK SUPPLY.

Mr. McKINNON WOOD (Glasgow, St. Rollox) presented a Bill to ensure the purity of milk supplies and to regulate dairies in Scotland. The Bill was read a first time.

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, March 28.

TERRITORIAL FORCES. ARMY VETERINARY CORPS.  
V. P. Jones to be Lieut. Dated Feb. 20.

April 1.

REGULAR FORCES. ARMY VETERINARY CORPS.  
Capt. R. C. Cochrane to be Maj. Dated March 9.

## Personal.

RILEY.—At Barnard Castle, Co. Durham, on the 17th inst., the wife of Percy B. Riley, M.R.C.V.S., of a daughter.

Messrs. V. A. BARTRUM, A. D. MORGAN, and H. SUMNER have obtained the Diploma in Veterinary Hygiene of the Faculty of Medicine in the University of Liverpool. Dated March, 1913.

Mr. C. E. PERRY, F.R.C.V.S., of Staple Hill, Bristol, was elected President of the Western Counties V.M.A. at the meeting at Exeter, on Thursday, 27th ult.

The Manchester City Council have granted increases of salary to the following members of the veterinary staff.—

Mr. A. D. MINOR, M.R.C.V.S., £325 to £350  
Mr. H. WHIPP, M.R.C.V.S., £190 to £205.  
Mr. W. K. JOHNSTONE, M.R.C.V.S., £190 to £205.

Mr. G. P. MALE scored a highly popular victory in the South Berks Hunt Cup race at the Point-to-point meeting of the South Berks Hunt, with his very useful gelding Surprise, Marrawee (owned and ridden by Mr. Guy Hargreaves) again running into a "shop." Mr. Male received quite an ovation when the "all right" was given.

THE SOUTH BERKS HUNT RACE for a Cup presented by Mrs. Charles Simonds; 2nd prize by Mrs. Guy Hargreaves; 3rd prize by Mrs. Eric Palmer.

Mr. G. P. Male's b.g. SURPRISE ... Owner 1  
Mr. G. Hargreaves' b.g. MARRAWEE ... Owner 2  
Mr. A. G. Isaac's b.g. THE FERRET ... Owner 3

LADIES RACE for a Silver Cup presented by Capt. Miller; 2nd prize presented by Mr. Eric Palmer; 3rd prize presented by Capt. Evans.

Miss Fullerton's STARLIGHT Mr. Robin Hall 1  
Mrs. G. P. Male's g.m. ARIEL Mr. G. P. Male 2  
Mrs. D. Simond's bl.g. WATCH Mr. A. C. Saunders 3  
—*Reading Observer*.

## OBITUARY

JOHN P. PRENTICE, M.R.C.V.S., 18 Govan Road, Glasgow.  
Graduated, Glas: April, 1868.

Mr. Prentice died from cardiac syncope, on March 27  
Aged 65 years.

ARTHUR FERENS, M.R.C.V.S., 32 Azalea Terrace South,  
Sunderland. New, Edin: Dec., 1905.

Death occurred on April 1st, at the age of 45 years,  
from endocarditis.

JOHN SKINNER KELLAND, V.S., Badsey, Worcester.

Mr. Kelland died at Badsey, Worcestershire, on the 21st March, aged 73 years.

One by one the advance guard of our profession are departing from us. To the list we have now to add the name of John Skinner Kelland. Mr. Kelland was born at Monkokehampton, Devonshire, in the year 1840; he served a pupilage with the late Mr. Sam Tremlett at Blackheath, Kent, and later acted as an assistant to Mr. Peter Bowden at Hounslow, also to Messrs. Mavor,



Park Lane, W. For some years he managed a practice at Rotherham on behalf of Mr. Anthony, and while there took on active part in stamping-out that scourge, viz., rinderpest, now fortunately unknown in this country; in 1868 he bought the practice of Mr. Hardcastle at Feltwell, Norfolk, and carried it on successfully for 35 years. In 1883 Mr. Kelland was appointed a veterinary inspector under the Diseases of Animals Acts for the County of Norfolk, also for the Board of Agriculture, and for upwards of 25 years he was veterinary surgeon for the Duchy of Lancaster, Norfolk Estates. Having a sound practical knowledge of his work he gained the full confidence of his clients, and was highly respected by all who knew him.

In 1903, feeling the effects of advancing years, Mr. Kelland retired, and settled in Badsey, where he lived for ten years a quiet contented life. He leaves a widow and grown up family to mourn his loss; our sympathy goes out to them and especially to the one who proved an ideal companion throughout life's journey. Mr. Kelland has stated that no matter how often he was called out at night his wife insisted on seeing him off, and always had some warm food ready on his return. None of his sons have followed their father's profession, but one of them, who assisted his father for some time, is a meat inspector at Central Markets, Smithfield, London.

The funeral took place at Badsey on the 26th March, and was attended by the family, relations, and many friends.

## CORRESPONDENCE.

### THE MILK AND DAIRIES BILL.

Sir,

I was much interested in reading E. Q. V.'s letter in the last issue of *The Veterinary Record*; also that of "Justice" with his letter to Messrs. Burt and Fenwick, M.P., and I think if others of the profession took the same interest in public affairs as these two writers do we might be in a better position to-day, and certainly would be before this preposterous "wild cat" Bill becomes an Act.

What is the Royal College of Veterinary Surgeons doing? I don't want to do them an injustice, but I trust they are doing something. Of course, most of them being busy town practitioners may not worry over milk and dairies. But surely a co-operative body like the newly formed National Association should be up and at it. Now is the time for it to shine and to show the profession that it has their interests thoroughly at heart. Let them communicate with—or better still, where possible, seek a personal interview with their own Members of Parliament, and drive the truth home to them. We are verily a weak-kneed lot. There is not a hundredth part of the profession who will stir in a vital matter, and still we cry "*Vix unita fortior*" like parrots! I have written to two local Members of Parliament.

May I subscribe myself another

VOICE CRYING IN THE WILDERNESS.

### POISONING IN ANIMALS.

Sir,

I am obliged to Mr. Wallis Hoare for pointing out the reference to a mycotic stomatitis of sheep simulating Foot-and-mouth Disease in the System of Veterinary Medicine. As however this occurs in the appendix, I may be excused for not having seen it in a short acquaintance with so voluminous a tome. My reason for seeking in the pages devoted to a description of the differential diagnosis of Foot-and-mouth for an allusion to symptoms produced in sheep and lambs by fungi, was that during an outbreak of Foot-and-mouth in the Isle of Man in 1884 I was on two or three occasions called to examine sheep and lambs supposed to be

suffering from the malady, but found that they were only affected with a stomatitis often observed in these animals when feeding on clovers. The real cause of the affection is now stated to be a rust, *Uromyces appendiculata*, parasitic on the clover—common on most leguminous plants. Not only sheep but horses also are liable to be the subjects of its attacks. A few years ago four horses grazing on the Lea Marshes trespassed into a field of clover on an adjoining farm (College Farm, Enfield Highway). They were not discovered for some time, but were then promptly put in the pound, from which they were delivered by the owner the same night. Two days afterwards I was called in to attend the horses, which were stabled at Ponders End. They were all suffering from diarrhoea, salivation, total want of appetite, great muscular weakness and depression. The buccal membrane was yellowish and showed areas of erosion of the epithelium.

Two of the animals died and the other two had a long convalescence. The owner of the horses was convinced that the horses had been poisoned by the tenant of the farm on to which they had trespassed.—Yours, etc.,

W. R. DAVIS.

### CONFERENCE OF VETERINARY INSPECTORS.

Sir,

Will you kindly allow me the use of your columns to announce that owing to the probable attendance being much larger than was originally expected, the meeting of Veterinary Inspectors in London on Monday, April 7th next, will be held in the Throne Room of the Holborn Restaurant, W.C., at two o'clock, instead of at 10, Red Lion Square, as advertised in your issue of the 29th inst.

Owing to the large amount of business to be transacted the meeting will commence promptly at the hour appointed. Your obedient servant,

TREVOR F. SPENCER, Hon. Sec. (pro tem).  
Kettering, March 31st.

### Veterinary Societies—Addresses.

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### COLONIAL SOCIETIES (continued next page)

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V. Pres: Major A. P. Gribben, F.V.O., M.R.C.V.S.  
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# THE VETERINARY RECORD

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## THE MEETING OF VETERINARY INSPECTORS.

Monday's meeting of veterinary inspectors was most successful and enthusiastic. The attendance was quite phenomenal, and the gathering was probably the largest assembly of veterinary surgeons that has met in this country. Next week we hope to publish a full report of the proceedings, which were very lengthy: to-day it will be sufficient to briefly indicate their nature. Sir Stewart Stockman was present and gave his promised exposition of the Tuberculosis Order, and afterwards devoted much time to answering questions on the subject from various inspectors. After the Order had been well discussed, the meeting passed to the proposed formation of a National Association of Veterinary Inspectors, and it was decided that such an Association should be formed.

A committee was appointed to take the necessary steps, and the probability is that the new Association, when formed, will be affiliated to the "National"—as it certainly should be.

Mr. Abson was in the chair, and can look back upon an afternoon's work which may have important results for the profession. A great deal of credit is due to Mr. Trevor Spencer, by whose initiative and energy the meeting took place, and who deserves the thanks of all.

## THE ROYAL SANITARY INSTITUTE.

Last week we printed the details of an important provincial meeting of the Royal Sanitary Institute at Stafford on the 25th of this month. The subject is "The Milk and Dairies Bill," and a powerful list of M.O.H.s, with two well-known veterinarians, Messrs. Malcolm and Holburn, are already advertised to take part in the discussion. There is room for other veterinary debaters; and it is to be hoped that some of our members in the Midlands will show their interest in the subject by attending the meeting. It is not essential that the veterinary element should figure very largely amongst the speakers. Our two present representatives are both specially qualified to deal with those portions of the Bill which affect as; and, after all, a great deal of the measure does not concern the profession at all. But it is in every way a good thing for veterinary surgeons to keep in touch with such bodies as the Royal Sanitary Institute, and to join medical men at their gatherings over any such subject of common interest as this Bill.

## SIR RAY LANKESTER, F.R.S., ON PARASITES.

By A. W. NOËL PILLERS, F.R.C.V.S.

"It is some comfort in the face of these unpleasant facts to know that tapeworms, though the bladder-like young stage is often injurious and even deadly to the intermediate host, are in their ultimate stage as intestinal worms in the final host almost entirely harmless. Healthy wild animals almost invariably have tapeworms and other such parasites inside them. They lose them when they are kept in captivity and are no longer in full health. Tapeworms do no injury to man, the small amount of nutriment which they appropriate being insignificant. It is the knowledge of the presence of the parasites which injuriously affects nervous people and sometimes leads to mental depression and distressing results of the kind."<sup>1</sup>

The above misleading quotation is taken from the concluding paragraph of a series of articles on "Parasites," under the title of "Science from an Easy Arm-chair," which Sir Ray Lankester contributes weekly to *The Daily Telegraph*. In September last the Editor of *The Veterinary News*<sup>2</sup> thought it necessary to point out to Sir Ray Lankester that his remarks on "Diseases of Cattle"<sup>3</sup> were far from accurate. He there stated that tuberculosis was a scheduled disease, that sheep scab was caused by an insect called the Ked, and that anthrax in animals was manifested by large pustules or carbuncles on the skin.

Bearing in mind all these facts, we must admit that "the easy arm-chair" is a most dangerous place wherein to acquire any real knowledge of veterinary science or parasitology.

It is, however, the effects of adult tapeworms upon their hosts that concerns us now. 1. Are they almost entirely harmless? 2. Do they cause no injury? 3. Are the injurious effects when shown due to mental depression alone, caused by the knowledge of the presence of the parasite? I feel confident that medical men and veterinarians will answer these three questions with an emphatic "No." We will consider them more fully.

1 and 2. Osler<sup>4</sup> with respect to tapeworms says that "they may cause no disturbance and are rarely dangerous. A knowledge of the existence of the worm is generally a source of worry and anxiety, and the patient may have considerable distress, and complain of abdominal pains, nausea, diarrhoea and sometimes anæmia. In women and in nervous patients the constitutional disturbance may be considerable, and we not infrequently see great mental

depression and even hypochondria. Various nervous phenomena, such as chorea, convulsions or epilepsy are believed to be caused by the parasites. Such effects are however rare. The *Bothriocephalus* may cause a severe and even fatal form of anæmia."

Hold<sup>6</sup> says with regard to *Dibothriocephalus latus* (syn. *Bothriocephalus*) "the increase of the eosinophile cells in the blood is of considerable diagnostic value. Many cases are on record of pernicious anæmia, some in children, where the disease disappeared after the expulsion of the worm. Nervous symptoms are not so often seen as with round worms."

Cobbold<sup>6</sup> says of *Tenia solium*, "When one or more sexually immature tapeworms have developed themselves within the human intestine they give rise to a variety of unpleasant symptoms more or less marked according to the irritability of the patient." Quoting Davaine he says "the principal features are vertigo, noises in the ears, impairment of sight, itching of the nose and anus, salivation, dyspepsia and loss of appetite, colic, pains over the epigastrium and in different parts of the abdomen, palpitation, syncope, the sensation of weight in the abdomen, pains and lassitude in the limbs, emaciation and periodic fits of faintness."

Schaumann<sup>7</sup> has shown that the anæmia produced by *Dibothriocephalus latus* is characterised by oligocythæmia, high colour index, and the presence of nucleated red cells, most of which are megalo-blasts; poikilocytosis and polychromatophilic staining are also present.

The quotations from these authorities should convince us that tapeworms are not "almost entirely harmless," and cause "no injury in man." Amongst the domesticated animals a similar state of affairs prevails, although perhaps not to such a marked degree.

In the dog the mucous membrane of the bowel may become studded with hundreds of *Tenia echinococcus*, producing marked inflammatory changes and consequent general derangement.

Raillet<sup>8</sup> says "Dans l'intestin du chien le *T. echinococcus* détermine parfois une violente irritation que se traduit par des symptômes rabiformes, ainsi qu'en témoignent les observations de Pillwax, Bollinger et Leisering." When great numbers of the other canine tapeworms are present they give rise to general unthriftiness, and I have recorded<sup>9</sup> the death of a valuable terrier from tapeworms. Many country practitioners have come across serious outbreaks with deaths from tæniasis in lambs and sheep due to *Moniezia expansa*. Veterinary literature contains numerous references to the damage produced by this and other tapeworms.

If tapeworms were almost entirely harmless one could not well understand the attention that public health and sanitary authorities pay to cysts (the adults of which infest man) in meat and food inspection.

3. When the variety of symptoms quoted above are taken into consideration, it is safe to say that many of them bear no relationship whatever to mental processes resulting from a knowledge of the presence of adult tapeworms. Especially is this so in

the case of colic, blood changes and enteritis in the dog resulting from the attachment of hooklets to the mucous membrane. Under these circumstances I consider the opening paragraph by Sir Ray Lankester to this note misleading, and prejudicial to the advancement of public health.

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#### TUBERCULOSIS OF THE UDDER.

In view of the work which it will be necessary shortly to carry out under the Tuberculosis Order of 1913, reliable statistics showing the prevalence of tuberculosis of the udder, and tuberculosis with emaciation, should be interesting.

Unfortunately, it is impossible to get reliable figures for Great Britain, and the only information of any value is that obtained for tuberculosis of the udder, from towns which have the special Milk Clauses.

In his report for 1911 Mr. J. S. Lloyd, Chief Veterinary Inspector to the City of Sheffield, gives the percentage of tuberculous udders in country cows examined as 3.5, and in city cows as 0.7, but it must be borne in mind that in the case of country cows, only herds from which tuberculous milk was being sent were examined, thus making the percentage very much higher than general. If we are assured that the examination of the city cows has been carried out in a systematic and thorough manner, then the percentage given should be approximately the correct one for the whole country.

A few weeks ago, in company with my colleague Mr. H. P. Lewis, I had the opportunity of obtaining valuable figures for this purpose.

A sample of milk sent from a milk factory in Derbyshire to Sheffield was found to be tuberculous, and on visiting the factory it was found that it was impossible to say from which farms the diseased milk had been received, and it was necessary for us to visit the whole of the farms supplying milk to the factory.

The farms were scattered over a fairly wide area and ranged from herds of three or four cows to herds of fifty. We visited forty-nine farms and examined eight hundred and sixty cows. Special samples from three cows were found to contain



tubercle bacilli, two of these being detected microscopically.

This would give a percentage of practically 0.35, but this varied in different districts as will be seen by the detailed percentages:—

District 1	375 cows	2 T.B. udders	0.53%
" 2	233 cows	1 T.B. udder	0.43%
" 3	252 cows	—	—

After the order has been working for some time it will be interesting to see how these figures compare with the percentage all over the country.

An interesting point in connection with the three cows which were found affected with tuberculosis of the udder, in view of the veterinary inspector's duties under the new Order, was that two of the three would come under the heading of advanced tuberculosis.

ERNEST J. BURNDRED, M.R.C.V.S., D.V.H.  
Sheffield.

#### JOHNE'S DISEASE IN SHEEP.

By F. W. TWORT, M.R.C.S., L.R.C.P., Superintendent of the Brown Institution (University of London),  
J. L. Y. INGRAM, M.R.C.V.S., late Veterinary Surgeon to the Institution.

It has been suggested recently that Johne's disease of sheep differs from the disease found in cattle, and that the causative bacilli, although allied, are not identical. It has been pointed out that in sheep the bacilli may be found in the upper part of the intestines and in the walls of the stomach, and recently we also have found the bacilli in these situations. On the other hand, we are not inclined to consider this a definite point of difference, as in cattle we have observed the bacilli in the upper part of the duodenum, and it is probable that the stomach may be affected also. Unfortunately we have had only one opportunity of making cultivations from a sheep, but in this case the bacilli, like those found in cattle, were isolated and grown without difficulty on media containing the dead bodies of certain other acid-fast bacilli. The formulæ of these media were given in detail in our previous papers, and need not be discussed here.

Besides cultivating the bacillus from a naturally infected sheep, we have been able to reproduce the disease in these animals by inoculating them with pure cultures of Johne's bacillus which we isolated from naturally affected cattle. Five sheep were inoculated, No. 1 by the mouth, Nos. 2 and 3 intravenously, and Nos. 4 and 5 intraperitoneally. Ten weeks after inoculation the animals were tested with a diagnostic vaccine prepared from cultures of Johne's bacillus, the vaccine being injected subcutaneously. The temperatures were taken hourly, after the 3rd hour, up till the 11th hour following the inoculations, and they were taken again at the 20th and 24th hour.

No. 1	gave a maximum of 105.0°F. in 8 hours
2	" " 105.2° 6 "
3	" " 107.1° 6 "
4	" " 106.8° 7 "
5	" " 107.8° 6 "

It will be observed that in every case the maximum temperature was registered between the 6th and 8th hour following the inoculation. None of the animals showed any evidence of diarrhoea.

Shortly after the vaccine tests, animals 3 and 5 were killed and post-mortem examinations made. Both showed definite lesions of Johne's disease, and no evidence of tuberculosis.

In the case of sheep No. 3 the intestines showed a moderate degree of thickening, most marked in the cæcum and ileo-cæcal valve, but only a few bacilli were found. The mesenteric glands were considerably enlarged, but in these we were unable to demonstrate the presence of Johne's bacillus.

Sheep No. 5 showed no definite thickening of the intestine, but several acid-fast bacilli were found in the walls of the ileo-cæcal valve. The mesenteric glands were much enlarged and presented the typical appearance of Johne's disease, although only a few bacilli were present.

We have to thank the Royal Society for grants which enabled us to purchase the animals. We also have to thank the University of London for grants from the Henry Dixon Fund which have partially paid for the general expenses.

#### CONCLUSIONS.

(1) Johne's bacillus can be isolated, from naturally affected sheep, on the same media that we have used for the cultivation of the bacillus from cattle.

(2) Johne's bacillus, isolated from cattle, will reproduce Johne's disease in sheep.

(3) Sheep (like cattle) suffering from Johne's disease give a marked reaction when inoculated with a diagnostic vaccine prepared from cultures of Johne's bacillus.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### THE CO-EXISTENCE OF ACTINOMYCOSIS AND TUBERCULOSIS IN CATTLE.

H. Langrand, a French sanitary veterinarian, has lately observed three cases of this nature. In publishing them, he refrains from drawing any premature conclusions, but suggests the possibility, in cases in which animals affected with actinomycosis have reacted to tuberculin, of an insufficient search to verify the absence of tuberculosis having been made.

The first case was a cow affected with intestinal tuberculosis (fibrous form) and at the same time showing pulmonary lesions. The anterior lobe of the right lung was sclerosed and contained seven or eight purulent centres of the size of a small apple. Microscopical examination of the pus revealed an acid-fast bacillus and the *Actinomyces bovis*. The bronchial gland contained pus, in which only the acid-fast bacilli were discovered. These acid-fast bacilli were tubercle bacilli, as was proved by the development of typical tuberculosis in three guinea-pigs subcutaneously inoculated with the pus. The cow also showed actinomycotic lesions of the inferior maxilla, which only contained actinomycetes.

The second observation was made upon some pieces of bovine lung which were brought to the laboratory, no information being forthcoming of the other lesions shown by the subject. The lung contained purulent sacs, in which both Koch's bacillus and the *Actinomyces bovis* were found. Two guinea-pigs were inoculated under the skin of the groin, and both developed typical tuberculosis.

The third observation was made upon a sac containing caseous pus, which adjoined the right submaxillary gland of a tuberculous cow. The gland itself was hollow, and communicated with the sac of pus. The gland and sac together formed a fusiform mass four inches long, deeply situated in the submaxillary region and showing no cutaneous fistula. The tongue showed an ulcer, and the left submaxillary gland, upon section, showed a caseous tubercle the size of a lentil. The ulcer contained the *Actinomyces bovis*. The right submaxillary gland contained only tubercle bacilli. The pus of the subglossal sac contained caseous clots and whitish grains of the size of a pin's head; and a few larger grains of yellowish colour were also found there.

The grains and clots were disassociated with difficulty. The tuberculous nature of the acid-fast bacilli found was proved by cultural experiments and by the inoculation of two guinea-pigs.

The author enters with some detail into the microscopic technique of the subject. This presents some difficulties, for it is impossible to absolutely separate the parasitic grains from the pus that surrounds them and examine the one for actinomycetes and the other for tubercle bacilli. Whatever precautions are taken, actinomycotic filaments and tubercle bacilli may be associated in the same preparation. Further, there does not seem to be a concordance of opinion regarding the special staining affinities of the actinomycotic elements. The author, however, having made numerous examinations of scrapings, concludes that the actinomycotic clubs retain their stain under Ehrlich's decolourising method (using Ziehl's carbol-fuchsin as the initial stain, and decolourising with nitric acid). They are therefore acid-fast like tubercle bacilli, and they do not take Gram's stain. The actinomycotic filaments, on the other hand, are decolourised by Ehrlich's method, and take Gram's stain well. This facilitates a distinction between tubercle bacilli and actinomycotic filaments or portions of filaments. Very rarely, however, the author has found forms which are rectilinear or undulated in shape, varying from 0.5 to 1.5 microns in thickness and from 4 to 10 microns in length, and which are acid-fast and do not take Gram's stain. These represent either very small and lengthened clubs (in drumstick form) or the slender extremities of large clubs. Their presence renders the diagnosis delicate, but a careful examination enables them to be distinguished from tubercle bacilli. The possibility of their occurrence should, however, be remembered. In the author's cases the diagnosis was facilitated by the characteristic grouping of the tubercle bacilli.—(*L'Hygiène de la Viande et du Lait*.)

W. R. C.

#### MEDICAL INSURANCE.

The Mayor of Ufa formerly carried out insurance in private offices, but finding this too costly, evolved the following scheme: To make a charge on the city treasury for the death or disablement of the municipal, medical, and veterinary staff from the following causes: smallpox, plague, scarlatina, diphtheria, anthrax, croup, typhoid, dysentery, malaria, cholera, colic, pneumonia, erysipelas, glanders, tuberculosis, rheumatic fever, scurvy, and rabies. The payments to the representatives of the dead or disabled are: Doctors 5000 roubles, assistant 2000, servants 500. No premium is paid by the beneficiary.

This example is worthy of imitation by other municipalities and departments.—V.S. N. Foss, Ufa.

F. E. P.

#### BENGAL VETERINARY COLLEGE.

The annual distribution of prizes to the successful students attending the Bengal Veterinary College, Belgatchia, took place on Monday evening, March 17th, under a *shamiana* erected on the spacious lawn attached to the College. The Hon. Mr. P. C. Lyon, C.S.I., member of the Bengal Executive Council, presided, and there was a fair attendance of those interested in the institution. Among those present were the Hon. Mr. J. G. Cumming, the Hon. Mr. Kerr, Rai Dr. Kailash Chunder Bose, Bahadur, and Mr. R. H. M. Rustomjee.

#### REPORT BY THE PRINCIPAL.

Major A. SMITH presented the following report on the working of the College for the past year:—

The number of students on the College rolls at the beginning of the session was 107 in the three classes, which number dwindled to 99 at the close of the session. They consisted of seventy-two Hindus, twenty-two Mahomedans, three Christians, and two Buddhists. Fifty-eight students came from Bengal, twelve from Behar, six from Orissa, eight from Assam, eight from Madras, one from Burma, one from Ceylon, three from the United Provinces, one from Port Blair, and one from the Malay States.

*Class A.*—Thirty-six students joined, including two plucked students of the previous year. Twenty of these came from Bengal, eight from Behar, three from Orissa, two from Assam, one from Madras, one from Burma, and one from Ceylon. Seven students—five from Bengal, one from Behar, and one from Orissa—were subsequently removed on account of their bad progress. The remaining twenty-nine were permitted to appear before the Board of Examiners, of whom twenty-two passed, making a percentage of 75.86 against 86.9 of last year.

*Class B.*—There were thirty students including nine plucked students of the previous year, and one plucked student of Class B of the Madras Veterinary College. With the exception of one student, who was absent through illness, all appeared at the Examination, and twenty-three passed, making a percentage of 79.31 against 78.1 of last year.

*Class C.*—This class opened with forty-one students inclusive of eight plucked students of the previous year. One student from Bengal, who failed to attend the required number of lectures, was advised to withdraw his name. The remaining forty students appeared before the Board of Examiners and twenty-seven passed making a percentage of 67.5 against 75.6 of last year.

Out of the twenty-seven newly-passed graduates, fourteen belong to Bengal, four to Behar, and Orissa, three to Madras, two to Assam, two to United Provinces, one to Port Blair, and one to the Malay States.

#### REPORT BY THE BOARD OF EXAMINERS.

The Examinations began on March 3rd and ended on the 12th.

"We are of opinion that the time has arrived to improve the standard of teaching and the class of student at the College. There is urgent demand for more highly trained graduates in the Provinces. The only way to meet this demand is to add to the teaching staff and to improve the quality of students admitted for training. We strongly recommend the addition of a fully qualified Imperial Officer to the teaching staff. All other Colleges doing similar work have at least two and some three Imperial Officers. We consider that the prospects are not sufficiently good to attract a sufficient number of suitable candidates and recommend that the question of improving the pay, etc., of graduates may receive consideration."

*Stipends.*—Of the ninety-nine students that remained at the end of the session, eighty-eight were in receipt of stipends from various sources, viz.—Twenty-nine from the Government of Bengal; seven from the Government of Assam; two from the Government of the United Provinces; one from the Government of Port Blair; forty-six from District and Local Boards; one from a Municipality; and one from the Tippera Raj, while one held the Shew Bux Bagla scholarship.

*Other Instructions.*—Five men from the Supplies and Transport Department were trained in nursing and dressing, and two men from Monghyr and one from Assam were trained in horse shoeing.

*Hostel.*—The general health of the boarders was good.

*The Hospital.*—During the year (up to end of February) 2103 patients were treated against 1925 during the corresponding period of last year, showing an increase of 178. The number of cruelty to animal cases sent by the trying Magistrates was 227 which, in comparison with 13,814 prosecutions, appears very small.

The fees realised for treatment, etc., amounted to Rs. 18,343-14-19, and the cost of feeding was Rs. 21,494-12-9, which includes the cost of feeding of the College riding ponies, the ambulance horses and the breeding and draft bulls, as also any chargers, horses or cattle, used in public service.

The CHAIRMAN then distributed prizes, consisting of diplomas, medals, books, and money to the successful students at the recent examination.

#### THE HON. MR. LYON'S SPEECH.

The CHAIRMAN who on rising was cordially received said: Major Smith, gentlemen, and students of the Bengal Veterinary College,—I have listened with attention and great interest to the report which has been read by the Principal of this College upon the work done during the past year, not only on account of its intrinsic importance to this Presidency, but also because I have myself watched the fortunes of this College from its very commencement to the present date with a growing appreciation of the value of the work which it does. And this appreciation has given me a keen sympathy both with those who are teaching the important science with which you deal and the students who are striking out for themselves a comparatively new line, who are destined to go out into the world and do work which will not only be of great economic value, but will do much to help and alleviate suffering among dumb animals.

There are two salient points in this report: one is that the number studying in this College showed some diminution in the past year; while the other is the demand which has been put forward by the examiners for

an improvement in the quality of the instruction which is imparted in the College. Now, as to the diminution in the numbers of the College, I have no doubt that it is in some part due to the recent increase in the cost of living which has led to enhancement of the pay of officers in other Government services, and must draw attention to the comparatively small emoluments and prospects of officers in the Veterinary service of Government. I can only tell you at present that this matter is under the careful consideration of Government with a view to the introduction in Western Bengal of the scale of pay that obtained in the Eastern Districts and which was initiated by the late Government of Eastern Bengal and Assam. The question at the same time of raising the initial pay of officers appointed to Veterinary Service will not escape attention, and I have every hope that we may be able to devise a scheme for the service which will place it on a par with other similar services in the Presidency.

There is no doubt that the best thing that could happen for the future prosperity of veterinary science in Bengal, would be the development among the people themselves of an appreciation of the importance of veterinary aid for their cattle, and the consequent improvement in the prospects of veterinary officers, who undertake private practice in towns and rural areas in the mofussil.

As to the second point; the improvement in the quality of the instruction to be given in this College. I have no doubt that the question of adding to the staff of the College will soon be brought before me and the recommendations of such an influential body as your examiners form will be given full weight.

But while you may thus have an opportunity of improving your scientific equipment, I hold it to be of vast importance that this should not be accompanied by a deterioration in that practical work among animals, especially cattle, which formed a conspicuous element in the successful *regime* of Col. Raymond, who has only recently left your College.

One of the most encouraging signs of the great advance which Bengal has made during the past few years has been the increasing readiness of young educated Bengal to take its share in manual labour, whether in workshops or on railways, or in the conduct and extension of new industries. Now, manual labour is more essential to the proper performance of veterinary work than to the exercise of almost any other profession. Until a student is wholly proficient in the practical art of handling animals, until he knows all about the details of their life, and until he is ready at any time to deal with a sick animal without the intervention of syces or servants, he has not acquired even an elementary grounding in the profession. It is necessary, therefore, that in your work here in Belgatchia, you should be prepared to do practically without menial assistance in attending to the animals placed in your charge, and that professors, as well as students, should lose no opportunity of practising the art of handling horses and cattle, but especially cattle. And this leads me to the reiteration of the advice given before now in dealing with matters connected with this College. Although here in Calcutta your attention will necessarily be directed perhaps to a disproportionate extent towards the care and treatment of horses, the most important work that you will have to do, when you go out into the world to practise your profession will be the care and treatment of cattle. I will not weary you with platitudes as to the enormous value to Bengal of her cattle. I will only say that the most successful veterinary officer in the future in this Province will be he who has the largest practice among cattle and the greatest knowledge of their ailments and their requirements.

I congratulate the students who have been successful in the recent examinations. I am aware of the great

regret with which the students last year witnessed the departure of Col. Raymond, a man whom the Government delighted to honour. Col. Raymond's work in this College was of a quality and of value that can only be fully understood by those who watched it from its earliest days, while his keen interest in his students and his ever present anxiety for their welfare and for their success in the profession they had chosen, endeared him to several generations of pupils in this College. He has been succeeded by an officer of mature experience, who is no less anxious to keep up and enhance the reputation of this College, than was his predecessor, and I wish him and all the students working under him all success in the exercise of their most beneficent profession. (Prolonged cheers.)

With a vote of thanks to the Chairman, proposed by Dr. Kailash Chander Bose, the proceedings were brought to a close.

#### SOUTHERN COUNTIES VETERINARY SOCIETY.

The thirty-second annual meeting was held on Wednesday, March 26th at the Royal College of Veterinary Surgeons, Red Lion Square, London. The chair at the meeting was taken by the out-going President, Mr. W. Hunting, F.R.C.V.S., and the others who signed the attendance book as members or visitors were Messrs. A. H. Archer, Southsea; E. Whitley Baker, Wimborne; W. H. Brown, London; J. B. Dier, East Grinstead; W. W. Henderson, Haslemere; G. H. Livesey, Hove; J. B. Martin, Rochester; C. Pack, Lymington; F. G. Samson, Mitcham; S. H. Slocock, Hounslow; P. J. Simpson, Maidenhed; J. A. Todd, Worthing; and Theo C. Toope, Dover.

Apologies for inability to be present were announced from Messrs. R. Burt, Walter Burt, G. W. Bloxsome, W. Coveney, W. A. Collins, W. A. Dellagana, Henry Gray, H. Leeney, D. Pugh, C. Pierce, P. Perkins, C. H. Spurgeon, and A. Whicher.

On the proposition of Mr. P. J. Simpson, seconded by Mr. Archer, the minutes of the last meeting as published in *The Veterinary Record* were taken as read and confirmed.

*Correspondence.*—The Hon. Sec. submitted a letter from Sir Stewart Stockman, the Hon. Treasurer of the Tenth International Veterinary Congress, appealing to those members who had promised subscriptions to send them in as soon as possible.

The PRESIDENT: Do we subscribe as a Society?

The HON. SEC.: Yes; I believe we gave ten guineas as a first instalment on the understanding that that donation might be supplemented by another later on, but we are not committed to anything beyond that ten guineas at present.

The PRESIDENT: Probably members will bear this in mind.

The HON. SEC. also reported that he duly communicated the resolution passed at the last meeting respecting travelling allowance for veterinary inspectors to the Board of Agriculture and had received the usual acknowledgment stating that they would give it their attention. This acknowledgment was received on December 21, but he had heard nothing further since.

The PRESIDENT: Apparently they are giving it very great attention.

The HON. SEC. further reported that he had written as requested to Mr. Butters asking him to reconsider his resignation and that the latter had regretted he could not alter his decision.

The PRESIDENT: I take it that in these circumstances we have no alternative but to accept it.

Mr. SIMPSON proposed that the resignation be accepted with regret.

Mr. DIER seconded, and this was agreed to *nem con.*

Other letters submitted by the Hon. Sec. included two from Mr. Theo. C. Toope, the Hon. Secretary of the South Eastern Veterinary Medical Association with reference to the questions of the Fees for Veterinary Inspectors, and the Fees received from insurance companies, but no further action was taken.

#### CONGRESS OF THE SANITARY INSTITUTE.

Mr. SIMPSON mentioned that there had been an objection on the part of many Societies hitherto to sending delegates to these congresses because the section devoted to veterinary subjects was generally put at the end, but he believed the Committee had now met that difficulty to some extent by altering the day, and he suggested that they might show their appreciation of that action by sending a delegate this year at all events.

Mr. LIVESKY remarked that he thought that they could devote their money to much better use in other directions.

Mr. ARCHER thought that being appointed a delegate to these Sanitary Congresses was one of the best ways in which an individual could raise and help to keep up the status of the veterinary profession. From his own experience of them, the medical profession as a body were quite willing and ready to welcome them and to admit them into their confidence, so to speak, and he was sure that they could raise and help to uphold the veterinary branch of the medical profession by attending these congresses. They could also do a great deal of good privately, in addition to which it was an education to oneself to attend them. Personally he thought it would be a great mistake on their part to discontinue sending a delegate to the Congress, especially as they had now altered the day on which veterinary matters were to be discussed.

Mr. TOOPE remarked that he recently attended on a special invitation a meeting of the Sanitary Institute, at which the Milk and Dairies Order was discussed, and he must say he was very much impressed by the opinions expressed by some of the medical officers there. Some held that veterinary surgeons would be useful and others that they could very well be dispensed with; and one gentleman even had the effrontery to suggest that the Bill ought to remain in abeyance for a couple of years until the sanitary inspectors were specially instructed to recognise this disease in cattle. He had a private conversation with that gentleman afterwards, he might add, and he thought he told him he had been talking "tommy rot." The general impression conveyed to himself, however, was that the majority of the officers of health could see the value of veterinary service with regard to this Act.

Mr. SLOCOCK after what they had heard desired to move that a delegate be sent. Mr. Pack seconded. [Carried.]

Mr. DIER remarked that he understood Mr. Archer was going there in any case, and in that case he had much pleasure in proposing that he be asked to represent them.

Mr. SLOCOCK seconded, and the meeting agreed.

Mr. ARCHER said that he would be very pleased to act as their delegate, especially as he was preparing a paper to read there this year. The subject was the transmission of diseases from animals to man, and he would be particularly glad if any of them could give him any authentic cases where disease had been transmitted from animals to man as it would help him in preparing his paper. He thanked them very much for electing him as their delegate, and he could only say as he did last year, that he would endeavour to do what he could for the good of the profession.

*New Members.*—Mr. DUNCAN C. CAMPBELL, of Beaulieu, who had been proposed by Mr. Dellagana and



seconded by Mr. E. Whitley Baker at the last meeting was formally elected a Member.

Mr. W. E. PETTY, of Southsea, was nominated by Mr. Archer and seconded by Mr. Simpson, for election at their next meeting.

Mr. W. A. DELLAGANA, of Southampton, was unanimously elected a Fellow of the Society under Rule 2 in recognition of the paper which he had contributed on Veterinary Surgeons and Insurance Companies. Proposed by Mr. J. A. Todd and seconded by Mr. Livesey.

#### ANNUAL REPORT.

The HON. SECRETARY submitted his annual report which stated that four meetings had been held during the past year, namely, two in London and one each at Brighton and Salisbury. The attendance book showed an average attendance of 13.2 per meeting. The thanks of the Society were due to Mr. J. T. Angwin for contributing an instructive paper, "Some Further Notes on John's Disease," to the President, Mr. W. Hunting, for the interesting Reminiscence Survey of the past fifty years of the Veterinary profession, which he gave as a presidential address on the occasion of the meeting at Salisbury, to Mr. A. H. Archer for his Report on the R.S.I. Congress at York, and to Mr. W. A. Dellagana for his paper on "Veterinary Surgeons and Insurance Companies." The Society now numbered eighty-three members, including officers and hon. associates. One new member was elected during the year, but he regretted to have to report the loss of one by death in the person of Mr. J. G. Tait, of Christchurch.

On the proposition of Mr. Dier, seconded by Mr. Archer the report was formally received and adopted.

#### ELECTION OF OFFICERS.

*President.*—Mr. Archer proposed Mr. G. H. LIVESEY, of Hove. Mr. Pack seconded, observing that he was quite certain they could not make a better choice. The proposition was at once put, and carried by acclamation.

Mr. LIVESEY, in acknowledging his appointment, remarked that he should have very great pleasure in accepting the position, and he promised that he would do his best to merit their confidence, though he felt some little diffidence in following such an old and experienced hand as Mr. Hunting; and with their permission he would like to propose Mr. Hunting as one of their four vice-presidents.

Mr. HUNTING while cordially thanking Mr. Livesey for the compliment, remarked that he would prefer to withdraw his name and to propose that of Mr. P. J. Simpson, of Maidenhead, instead. He had now held the position of their President for two years, and as an hon. associate his services would always be at the call of the Society.

*Vice-president.*—Mr. Archer seconded Mr. SIMPSON'S name. It was at once carried by acclamation.

*Hon. Sec. and Hon. Treas.*—The re-appointment of Mr. J. A. TODD as hon. secretary and Mr. E. Whitley Baker as hon. treasurer was also agreed to by acclamation.

*Committee.*—Messrs. J. B. Dier, W. W. Henderson, C. Pack, and R. F. Wall, together with the President, Hon. Sec. and Hon. Treasurer were constituted the Executive Committee for the ensuing year.

#### TREASURER'S STATEMENT.

Mr. WHITLEY BAKER submitted the Treasurer's statement, which showed a total expenditure during the year of £31 16s. 7d., including a donation of £10 10s. to the International Veterinary Congress, and a balance in hand at the close of the year of £18 5s. 10½d., which compared with a credit balance of £36 0s. 5½d. twelve months ago.

Mr. Baker mentioned that several gentlemen still remained on his books as members of the Society who

had not paid even their entrance fees, and he would like to have the instructions of the meeting as to what course he was to take with regard to these. It was no use Mr. Todd and himself repeatedly sending out notices to these gentlemen if they got nothing back in return.

The HON. SEC. added that he would also like to receive the instructions of the meeting with regard to these members who were in arrear, because, as Mr. Baker had said, it seemed useless to keep entering up their names meeting after meeting if they did not intend to remain members.

Mr. SIMPSON asked if there was not a rule dealing with this matter.

The HON. SEC.: Rule 21 states that members who are more than a certain period in arrear shall receive a notification to that effect and that if the subscriptions are not forthcoming at the next quarterly meeting their names shall be reported as defaulters.

Mr. SIMPSON: I should think if we sent out a notice to that effect it ought to bring some reply, and in any case we should know where we are.

Mr. BAKER mentioned that there were at least fourteen names on his books, of gentlemen who had not paid anything.

Mr. SIMPSON proposed that those members who had not paid their entrance fees should at once be struck off, and that those who were two years or more in arrears should be written to, calling their attention to the rule the Secretary had read and stating that if the back subscriptions were not paid by the next meeting they would be regarded as defaulters. They did not want to have a lot of names on their books who were not really members, especially now that they had to pay a fee for them under the Amalgamation scheme.

Mr. SLOCOCK seconded. They had a rule in one Society that he knew of that provided that when a member became three years in arrear he ceased to be a member automatically, and personally he thought that was a very good rule. At the same time he quite agreed with Mr. Simpson's proposition.

Mr. E. WHITLEY BAKER: I take it that whatever resolution is passed you will allow me a certain amount of discretion, because not so very long ago I got in six guineas from one man which represented twelve years subscription.

The PRESIDENT: Certainly. The resolution is merely intended to help you, and to give you something to go upon.

*Place of meeting.*—Two places were proposed as the venue for the next meeting which is to be held on the last Thursday in June, namely Portsmouth, which was proposed by Mr. Baker and seconded by Mr. Archer, and Bournemouth which was proposed by Mr. Pack and seconded by Mr. Dier and on a show of hands Bournemouth was decided upon by six votes to four.

At this stage Mr. Hunting vacated the chair, and the new President, Mr. G. H. Livesey, took charge of the subsequent proceedings.

#### SPECIMENS AND CASES OF INTEREST.

Mr. A. H. ARCHER mentioned that he had rather an interesting case come under his notice last Christmas, inasmuch as it raised a question as to whether an injury had been inflicted intentionally or accidentally, and, in a way, whether it was really a deliberate injury at all. He was called the day after Boxing Day to see the animal, a mare, which was off her feed and showing a certain amount of abdominal pain, there was also an elevated temperature—in fact all the usual symptoms of peritonitis. On making an examination he found there was a slight tear of the mucous membrane of the vagina, but beyond that he could detect nothing. He told the owner that he considered it was a serious case,

and that the animal was dangerously ill. The next day when he saw the mare again he was convinced that urine was escaping into the abdominal cavity, and that it would prove fatal. The animal died during the night, and he made a post-mortem the next day. This revealed two perforations of the fundus of the bladder and a slight tear of the mucous membrane round the opening of the urethra. There were also three or four slight bruises round the os, but the uterus itself was not injured in any way. The question arose as to whether these perforations had been caused deliberately by some vicious individual, or whether accidentally; there was also the possibility that they might have been the result of ulceration or other natural causes. It was a very puzzling case to him, because in the case of one of the perforations there had been, in his opinion, a disease of old standing, possibly an abscess. The other one, however, was quite recent.

Mr. TOOPE remarked that Mr. Archer's experience recalled a curious case of a similar nature which he once had on a wayside farm adjoining the high road to Folkestone, but in this instance there was no doubt as to how the injury had been caused. The mare was bleeding extensively, and on exploring he found the vagina was torn on the right side to the extent of six or eight inches. The mouth of the womb had also been forced open, and it was quite evident the injury was a malicious one. The farmer's son mounted a bicycle and rode after the man who was supposed to have committed the injury, and there was also full evidence of what he had done it with in the shape of an old broom stump. The animal bled very considerably, but the strangest feature about the case was that although the injury was so severe, three or four days afterwards no one could have determined that such an injury had really occurred. The man on being brought back confessed to having done it, and he said he did not know why. Eventually he got two years hard labour for it.

Mr. BAKER exhibited the heart and lungs of a Siamese kitten, which he explained was taken suddenly ill with what appeared to be stomach derangement, and on making a post-mortem examination he was found to have a very abnormal condition of the lungs. One lung had the lobes absolutely divided right up to the bronchial tubes, while the other had four distinct lobes absolutely unconnected except at the bronchial tubes.

The PRESIDENT (Mr. Livesey) mentioned an interesting case of a little Scotch terrier which had died of tuberculosis. He had known the animal practically all her life of about eight years, and until a few months before her death she always enjoyed excellent health. She came to him at regular periods to be shut up while on heat, and he thought he gave her some medicine once or twice for worms, but that was all the medical attention she had until last December. She had then been shut up on his premises for approximately three weeks on heat, and the day after she was sent home she was noticed to be rather unsteady on her hind legs. He examined her, but could find nothing very wrong with her apart from this unsteadiness, and in fact what puzzled him at the time was the absence of any symptoms beyond this apparent muscular weakness. This state of things went on for some while, the animal being sometimes a little better and at others a little worse. He noticed too that the bitch was becoming more gray, and that a certain pathetic look came into her face; also that she did not lift her fore feet very well. In January the patient showed some slight signs of pain in the neck and he thought it was one of those obscure spinal cases they sometimes had to deal with. He treated her with salicylates and aspirin, but with very little benefit. He then put her on iodides, and she rapidly got worse. He called in a well known canine specialist to help him in diagnosing the trouble, and the latter eventually came to

the same conclusion that he had done, namely, that there was some spinal trouble situated between the back of the poll and the fifth cervical vertebra. He prescribed a fiftieth part of a grain of iodide of mercury three times a day, and they also used a liniment of aconite and belladonna for the sensitive area for about a month. During the first fortnight of this treatment the dog improved and put on flesh, but after then she began to fall to pieces again very rapidly, until about a fortnight ago she was practically unable to move. He then thought that probably there was some malignant growth in one of the bones of the neck or spinal column. Eventually he destroyed her, and on making a post-mortem found she was riddled with tuberculosis from head to tail. The peculiar feature about the case to him was the fact that during the whole of the time he saw the dog he never heard her cough, he had used the stethoscope on her several times, and had never detected anything unusual in the chest, and on trying her temperature he had never found it more than half a degree raised. In fact there was a total absence so far as his observation went of any tubercular symptom beyond the wasting, and that was only noticeable during the last two or three months. There had never been a case of tubercle in the house where she lived, and the animal had never been out of that house except when she was on his own premises, and he could speak to these being free from anything.

Mr. SIMPSON proposed a hearty vote of thanks to the President, Mr. Archer, Mr. Baker and Mr. Toope for the interesting cases they had brought to their notice and this was seconded by Mr. Samson and carried unanimously.

Mr. ARCHER mentioned that he had recently had a long interview with one of the members for Portsmouth, Mr. Falle, with regard to the Milk and Dairies Bill, and as a result Mr. Falle had arranged for him (Mr. Archer) to have an interview with Mr. John Burns, at which he might explain his views as to the administration of that measure. If they had any points they would like emphasized he would be pleased to hear them, and to lay them before Mr. John Burns.

Mr. SLOCOCK suggested that Mr. Archer would do well to get an interview with Sir Stewart Stockman and Mr. Garnett, the chairman of the Parliamentary Committee of the Council, before seeing Mr. John Burns, adding that his own ideas might be either confirmed or modified in consequence, and that in any case he thought he would be well advised if he went in accord with the official professional view.

Mr. TOOPE mentioned that he was contemplating calling a meeting of the Southern Counties Branch of the National Veterinary Association shortly to discuss this same matter together with that of the tuberculosis order.

On the President eliciting from Mr. Toope that a resolution from that society would strengthen his hands in calling the meeting.

Mr. E. W. BAKER proposed that the Hon. Sec. of the Southern Branch of the N.V.A. be requested to call a meeting of the Branch to discuss the position of veterinary surgeons in respect to the Milk and Dairies Bill and the Tuberculosis Order with a view to the taking of common action in regard to the same.

Mr. ARCHER seconded and this was agreed to.

Mr. TOOPE also incidentally drew attention to the comparatively small numbers of veterinary surgeons in the south who belonged to the National, and emphasized the desirability of everyone who could see his way to do so to become members, either through their individual societies, in which they would only pay a reduced fee of 7/6 a year, or individually.

Mr. E. WHITLEY BAKER asked if members would continue to make their payments direct to the National or through their various societies in future.

This honest declaration was made fifteen months after the war began. It is probable that when it was written it was not expected that it would receive the publicity subsequently accorded it, but under any circumstance we cannot help but admire the confession of ignorance and impotence which marked the remount operations of the Army in South Africa from the beginning of the campaign. The writer deploras the waste of public money through incompetence and ignorance of local conditions.\* It is due to him to add that if he lacked knowledge he certainly was not wanting in zeal and energy. He also possessed marked capacity for organisation, and this was strengthened by a Staff College qualification. It was his organising powers which were to stand by him throughout the war.

The only question in connection with his appointment which appears to have troubled the Remount authority of the War Office was that of his rank (see above); he was a Major, and later on a Lieut.-Colonel, and there appears to have been a feeling that this was not a high-enough rank for such a responsible position. The feeling seems to have grown, for by the end of 1901 the authorities, both at home and abroad, were so satisfied with his work and so dissatisfied with his rank that they sent out a General Officer to replace him. This, however, does not enter into the year under review, but will be noticed in its proper place. What we are doing here is presenting the man who, with no experience of the work, took on the largest remount operations known to any army since Napoleon's invasion of Russia in the year 1812.

As a consequence of the experience thus gained, he was able within a few months of taking over his duties to pose as an authority on veterinary organisation. The report which contained his views on this question was considered of such permanent value that it was printed, and now forms part of a Parliamentary Paper. It will be dealt with in its proper place.

A brief history of the operations of each side for the years 1899-1900 is now necessary to enable the remount work to be understood, and we shall begin with Natal.

#### THE NATAL REMOUNT SERVICE.

When Colonel Stevenson reached Natal in August, 1899, he tells us, *C. of E. Rem., Q. 2938*, that no remount arrangements had been made, and that everything connected with the department was in a condition of "absolute chaos." Colonel Chisholm, 5th Lancers, was buying horses; but, according to the witness, there was no system, the animals were bought in a happy-go-lucky way by anybody who might be detailed for the purpose.

He established a small landing depôt in the show ground at Durban, a depôt with grazing farm at

Maritzburg, and an advanced depôt at Ladysmith, which remained during the investment. When the enemy pressed south in Natal in Oct., 1899 (p. 22), the horses at Maritzburg had to be sent to Durban for safety, and this depôt was then enlarged to contain 5000 animals, and a small farm in connection with it rented. Additions were made to the stabling and accommodation in the show ground, and some 12 acres added; troughs and mangers were erected and the place fenced in. A railway siding in the show ground facilitated the reception and despatch of animals. When matters permitted a re-opening of the depôt at Maritzburg this was effected, and the all-important advanced depôt situated at Mooi River was opened in December, 1899. We have seen something of this place at p. 23. It was healthy, at a great altitude, had good pasture, ample water, and 5000 acres were secured, later on increased to 8000, on which paddocks, feeding troughs, etc., were erected. All these admirable arrangements made by Colonel Stevenson for the care of his remounts were neutralized by the fact that he also used his depot as a receptacle for sick animals from the front (pp. 23, 84). He confirms this statement in his evidence given in March, 1902, and apparently even then did not recognise the gravity of his action, doubtless because he had been trained under the "Yellow Regulations" to regard remount depôts in war as a refuge for the destitute.

Before the relief of Ladysmith small depôts were formed on the line of rail at Estcourt and Frere; after its relief the remount depot there was reopened, and with the general advance Newcastle, Volksrust and Standerton were given remount depôts. To all these grazing farms were attached, for resting debilitated and war-tired horses. Col. Stevenson was indefatigable in seeing horses in the field, so that he knew the work and rations they were receiving, and was in a position to learn something of the value of different breeds of horses for army purposes. By August, 1900, the military operations passed out of Natal, which now became the main highway of remount supply (p. 87), and with this Colonel Stevenson returned to Durban, which assumed a still more important character as a landing depot. The site of the Durban depot would never permit it to be a good one, but the amount of work done and horses passed through was extraordinary. On landing, the animals were examined by the veterinary officer, and if found free from disease and fit to travel were sent on as soon as possible to Mooi River depot, where they were rested before being despatched to the front. The weakly or debilitated animals remained at Durban until fit to travel. The difficulties and dangers of the railway journey in Natal are referred to at p. 87.

Colonel Stevenson left Natal on 20th November, 1900, and went home. From that date the remount operations on the Natal side were fused with those of the Cape and were conducted by Colonel Birkbeck. Colonel Stevenson was now a man with a grievance, and every allowance must be made for this in reading his egotistical evidence of the work he

\* When the foregoing was written Colonel Birkbeck did not know that the skilled advice and experience of the D.G. A.V.S. had been rejected by the I.G. Remounts, War Office, see p. 122.



accomplished in Natal. Rarely absent from his side for fifteen months was Lieut. W. G. Williams, A.V.D.,\* an officer of great ability, without whose assistance Colonel Stevenson would practically have been powerless. From August to October, 1899, he was the only officer Colonel Stevenson had under him. During this time the latter purchased large numbers of animals, and made up all the mounted troops to full strength in horses and transport mules, before they left for the front in October. (*C. of E. Rem.*, A. 2809). Nowhere in his evidence does Colonel Stevenson refer to Lieut. Williams' work, but he remembers to tell the Court twice of a transport veterinary surgeon who was "drunk and incapable," and describes the class of transport veterinary surgeons as probably "not worth anything." (Q. 2828).

It is interesting to observe that the *C. of E. Rem.* brought out an expression of opinion from the officer who relieved Colonel Stevenson in Natal, that he found on taking over charge that the whole office was in a state of confusion. (Q. 3778).

#### THE CAPE REMOUNT SERVICE.

Brief reference has already been made to the Remount organisation in the Cape under the Director of Supplies during the period October, 1899, to February, 1900. The depots were established on the three lines of rail, Cape Town having Stellenbosch and De Aar, with a landing depot nearer to the port. The midland line had Port Elizabeth as its base and Naauwpoort as its depot. East London on the eastern line being the base port for Queenstown. Arrangements were made, and the A.S.C. Companies allotted for work before the ships arrived. In the meantime the department was busy purchasing animals in the Cape, and some 7000 cobs and 9000 mules were so obtained before the arrival of Lord Roberts. Ships had begun to arrive with remounts as early as the 20th October, and some of the important facts connected with these animals are recorded at pp. 9, 13.

During Lord Methuen's operations between the Orange and Modder Rivers in 1899 the remount work was carried on from De Aar, and later with the occupation of Modder River a depot was formed there, which stultified its operations by mixing up the sick horses of the force with remounts for the troops, and the same thing occurred at Naauwpoort (p. 20) during the operations of General French around Colesberg. It was at Naauwpoort that for the first time the provision of a farm for the debilitated animals was realised; owing to the large number of debilitated horses and the difficulty of feeding them so far from the coast, they could not be kept at the front, nor, as we have seen, was there anyone to look after them. This duty was assumed by the Remount Department, it would seem in their determination both in Natal and the Cape to keep the entire horse question in their own hands.

\* Now Major Williams.

They had really nothing to do with debility horses, but someone had to deal with the matter, and the Remount Department readily stepped into the breach—and lived to regret it. It was a sound measure to remove the animals to a farm, but instead of the long journey to the Cape, some nearer place in the midlands should have been selected; no one at that time realised how badly war-worn horses travel by rail.

With the advent of Lord Roberts, the Director of Supplies was kept to his legitimate duties of supply, and Remounts formed a separate division under the Staff Officer of Remounts, now made Assistant Inspector of Remounts.

After Paardeberg remounts were sent across from the Modder River depot, but numbers of them were little or no use owing to the condition of their feet. They required shoeing, and as we have seen (p. 37) neither shoes nor nails existed. It is no use sending a remount of horses into the field unless they are shod, for the exigencies of the service do not admit of this being carried out regimentally. The collection of sick at Kimberley after the Relief was also dealt with by the Remount Department, who despatched the animals whither they thought fit. The De Beers Company at Kimberley came to the rescue by placing a farm at the disposal of the Remount Department for debilitated horses. Several hundreds of those belonging to the Cavalry Division were so disposed of with good results. Those sent away by train were far less fortunate.

The Modder River depot, as soon as possible, moved to Kimberley, and eventually became the permanent centre for all operations on the Western line.

Seven Remount Depots arrived from England about the middle of March, but only two had complete personnel, the others were skeletons. We have seen how the personnel disappeared. With the occupation of Bloemfontein a depot was formed, and, as remarked at pp. 41, 59, farms were taken in the vicinity to accommodate the sick, the most important being Fischer's, regarding which more will be said presently.

Owing to the congested condition of the railway, remounts for the Army at Bloemfontein were unable to be carried further than the Orange River. From this point to Bloemfontein, a distance of 130 miles, some 5000 animals were sent by road in various batches. The losses in consequence from exhaustion and straying were extraordinary, for some of the parties lost from 25% to 30% of their horses, although they were simply walked quietly along the railway. Those that arrived at Bloemfontein were in such bad condition as to be unfit for issue, p. 53. Apart from the unfitness of the animals to march, even when they only had to carry their own weight, there must have been some gross mismanagement in losing so many by straying. Horses do not, and will not, leave a "mob" unless "cut out," so that there may have been other factors at work. It is impossible to see how any foresight could provide against the contingency

of a march; 5000 animals form a large body and require when driven in masses expert handling, while their feeding can never be anything but grazing. The labour required for hand feeding is out of consideration when arrangements have to be made in the twinkling of an eye. The loss of remounts on the march to Bloemfontein gave the Remount Department a severe set back. Experience in the campaign, however, showed that whenever remounts were marched to their units things went wrong. It was so on the road to Pretoria p. 79, to Middleburg p. 97, to Lydenburg p. 100, and we shall meet with it again in 1901. Want of sufficient personnel to look after them, want of food, want of care and attention, want of arrangement for their journey, want of condition; these were the causes which destroyed what in theory should have been a sound proceeding.

The occupation of Bloemfontein brought the Midland line into prominence for remount delivery owing to the distance being thus shortened. The depot at Port Elizabeth was at first situated in the show yard. At this port there was unfortunately no accommodation for ships near to the shore, and the animals had to be slung over the side and brought in by means of lighters. These and the horses landed at the Cape were hurried up to Bloemfontein to meet the new military conditions which had arisen in April, and found themselves at once placed in the ranks. The totals issued at Bloemfontein at this period are given at p. 53, and the results of employing horses for military operations which had come straight off ship-board, p. 49, are given at p. 56.

At p. 59 some notion is given of the numbers of animals transferred to debility farms at Bloemfontein, i.e. Fischer's and Lynch's by 7th May. Finally some 6000 found their way thither, and the difficulty was to know what to do with them owing to the question of food supply. It seems very hard after bringing animals together at enormous cost from the uttermost ends of the earth, to have to destroy them when they are exhausted for want of condition and food. A few pounds of hay daily would have saved the lives of many hundreds, but the supply of this was apparently impossible. The animals were grouped into three classes, according to the probability of their being fit in one, two, or more months. The latter were sent south if fit to travel, if not, destroyed; those likely to be fit in two months went into the Colesberg district to an excellent farm named Achtertang, while the first group remained at Fischer's and Lynch's farms.

This system of classifying the *débris* of war was subsequently universally adopted, it was sound and practical; mistakes no doubt occurred. Many animals in the first instance were sent away by train which were unfit to stand jolting in the rough handling trucks get in war, and once they fell they never rose. A little later a large consignment was sent south from Pretoria by rail after careful selection, yet the results were lamentable, and on arrival at Kroonstad the survivors were shot by hundreds.

With experience we learned that war-worn horses must have a great deal of vitality left to be able to do a long railway journey and arrive alive at their destination.

The eastern line from East London was opened very quickly after the commandos were driven back over the Orange River, and this, together with the midland, kept Bloemfontein fed. Where the two lines meet in the Free State, at Springfontein, another depot was formed.

After the occupation of Bloemfontein, Basutoland became a source of remount supply. The Basutos were unwilling to part with their animals until they saw which way the wind was blowing; after Paardeberg there was no difficulty in securing a large number of useful horses, many of which replaced the losses which occurred to the Colonial Forces during the investment of Wepener. The Basutos preferred cattle to money, and large quantities of captured stock were bartered for their ponies, not only from the Free State but also the Natal side. During the entire period of the war a total of 16,000 animals was obtained from this country.

On the occupation of Kroonstad a third depot for the Free State was opened.

The absence of a P.V.O. with the Force under Lord Roberts has been commented upon more than once. Not only was he left behind, but the A.I. Remounts were sent back to Cape Town from Bloemfontein. It is difficult to understand how the Head-quarter Staff believed the work connected with the supply of horses in the Field could possibly be carried out hundreds of miles away from the advancing line. As a matter of fact someone with a knowledge of requirements had to be appointed, and it fell, as we have seen (p. 69), to Lieut. Sawyer, A.V.D., to act, so that while Remounts were busying themselves with sick horses which do not belong to them, veterinary officers had to be appointed to act as remount officers. A remount officer should also be present with a Force in order to deal with captured stock.

The introduction of disease by means of captured animals was a matter of daily occurrence. It would have been largely prevented had some sound system for their collection and veterinary inspection been organised during the campaign, to say nothing of the saving of money by effecting a proper distribution of horses which were ever liable to find their way into the hands of people who regarded them as loot and private property. To the ordinary individual the distinctions, as to loot are rather curious. He may help himself, when permitted, to the contents of a man's house, and regard whatever he can carry away as his private property. He may empty the pockets of a dead enemy without incurring a rebuke, but he must not help himself to the man's horse. That is the property of the army. No doubt much of the carelessness that existed in regard to lost and captured stock was due to the loose morality in these matters which always occurs in war. When it is remembered that captured and



loot animals ran into tens of thousands in the course of the campaign, some organised system for dealing with them is evidently required.

When Pretoria was entered the horse difficulty became acute; we need not go over the ground again. The system of *requisitioning*\* animals at Pretoria, Johannesburg and Potchefstroom was adopted and led, certainly in the case of the former place, to quite a number of useful horses being obtained. The system adopted at Pretoria for general requisition was to block every outlet from the town at a given hour, and seize every animal of the civil population that was in the streets, no matter to whom it belonged. Something like four to five hundred horses were obtained in this way out of the streets of Pretoria. The horses from Potchefstroom were less satisfactory: of 700 seized 200 were shot on arrival at Pretoria and only 200 issued, the balance being sold in the Cape.

The condition of the remounts received during the early days of the occupation of Pretoria has been dealt with at pp. 82, 83. A remount depôt had been formed in the town, but it was impossible to hold animals sufficiently long to enable them to recover from their journey, let alone to improve in condition, and the reason for this is apparent from the account of the military operations already given.

The drain on the horse supply, and waste occasioned by the first chase after De Wet in July, 1900, will never be known. Animals were pushed on by rail to meet the columns as they crossed the Potchefstroom line, but the meeting of a column was a matter of accident, for its course varied with the tactics of the enemy. Where the animals were missed there were no satisfactory arrangements for their care until they could again meet the force for which they were intended; to follow it led even to worse results, for they could only overtake it by marching twice as fast as the column itself.

The following evidence of Lieut.-Colonel Le Roy Lewis, D.S.O., I.Y., given before the *C. of E. Rem.* well illustrates the case. He says (*Q. 5010 et seq.*) that on 15th July he took over at Krugersdorp 500 remounts for the division under Lord Methuen. These animals had already been eleven days in the train with only seven men to look after them and no officer. Three died in the trucks, the others were so weak they could barely stand. After two days these horses were mounted and moved off against De la Rey in the Magaliesberg Range, and in less than three weeks 800 of them were dead. He further (*Q. 5028*) states that while at Krugersdorp a remount of 300 horses came for the 3rd Cavalry Brigade, which being elsewhere could not receive them. There were no facilities for accommodating these horses at Krugersdorp, and no one to look after them. Lord Methuen left a veterinary officer and 16 men, all he could spare, although, of course, the horses did not belong to his command.†

\* This was a new experience to the Army and led to blunders and irregularities. Later on, even a private soldier would take a man's horse from him, giving him a worthless receipt.

† See p. 96 these horses were awaiting the arrival of the 3rd Cavalry Brigade from Zeerust.

The state of the horses in the general advance east from Pretoria has already been related. Reference has also been made to the collection of animals at the Remount Depôt formed at Machadodorp (p. 103) on the breaking up of the Colonial Forces.

The remounting of General French's cavalry at Machadodorp has been referred to, together with his subsequent losses in the cross country journey via Ermelo, Heidelberg, and Springs, to Pretoria. The remounting of the Cavalry Division at Pretoria on its arrival in December has not been specifically dealt with. It is important in the sense that then for the first time it had been found possible to give these horses a month's rest and exercise before issue.

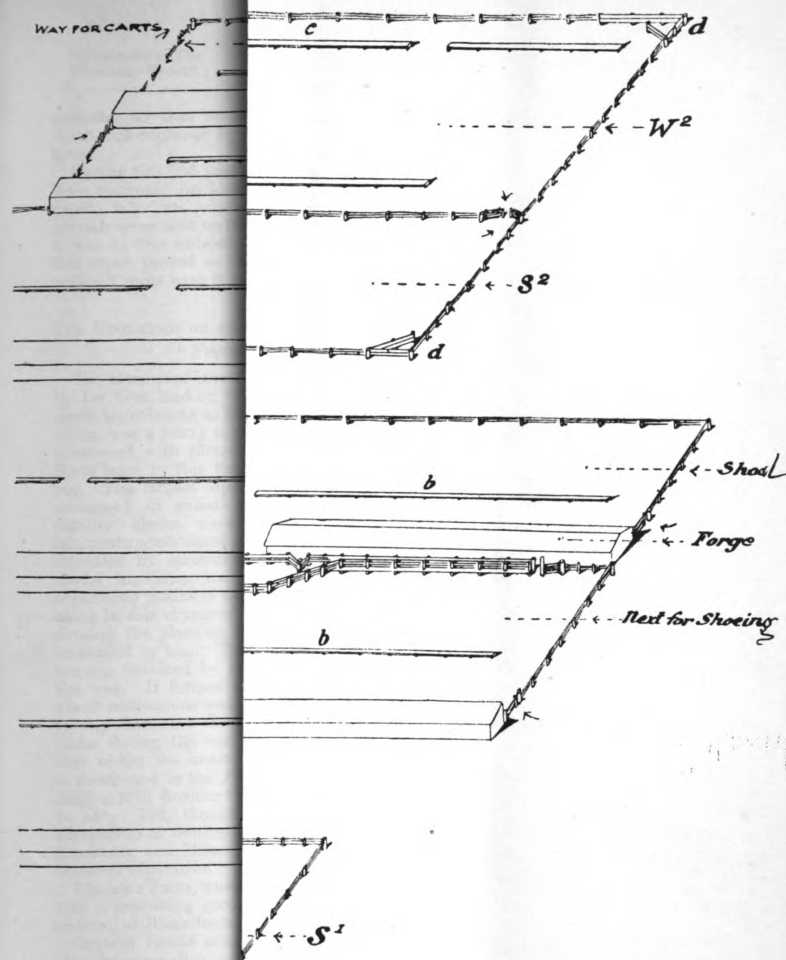
The depôts in the Free State and Western line at Kimberley had been actively engaged from May onwards. The latter in fitting out the forces of Hunter, Mahon, and Methuen, the former in dealing with the columns of C. Knox, Bruce Hamilton, and others already mentioned in connection with the military history of this colony from July to December, 1900.

A remount depôt was established at Harrismith in August, 1900, under General Rundle. It will be remembered that Rundle, owing to his isolated position, at first received no remounts, and had to depend upon local supply. He placed Lieut. A. H. Lane, A.V.D.,\* in charge, whose previous experience in handling large bodies of horses in the U.S.A. while ranching proved of the greatest utility. The show yard at Harrismith was adapted to requirements, and shelter provided in this bleak district for as many animals as possible. The staff was picked up here and there, and gradually it was possible to secure good men who formed the backbone of operations which grew into considerable proportions. Two Veterinary Officers of Yeomanry and one C.V. Surgeon were invaluable additions to the staff. These were Captains Wallis and Spanton, I.Y., and C.V.S. Mitchell: both the former officers held Canadian qualifications, the latter was a graduate of the New York School and had served with the U.S. Army in Cuba. All were familiar in handling large numbers of wild horses. To Lieut. Lane and these three officers the successful working of a very difficult depôt was due.

The depôt was divided into departments—the sorting, breaking-in, and issuing sections. The veterinary side consisted of the hospital, convalescent and isolation sections. Circumstances attached to the dual appointment necessitated the above combination of Remounts and Hospital, which in other places had proved so harmful. Rundle's columns were small, and of mounted troops he at first had few, nevertheless each column was supplied with a mobile remount and veterinary squad, the former collecting all horses on the veldt, the latter dealing with veterinary troubles. The remount squad also took along with it spare

\* Now Major Lane.





N F. EASSIE, A.V.D.

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animals, so that no horse should be worked to death, but replaced by a fresh one if found sick or lame.

During the first year at Harrismith all the troops were mounted on local horses dealt with by the depot; later on, when communication was open, animals were sent up from Mooi River in Natal, but it was in the utilisation of the native horse that this depot proved so valuable and economical, and we shall meet with it again in 1901.

#### THE EVOLUTION OF THE MODERN REMOUNT DEPOT. "FISCHER'S FARM."

The attempted invasion of the Cape in December by De Wet, leading to the extraordinary exertions made by columns to head him off from the Orange River, was a heavy source of drainage, but matters connected with remount organisation in the Free State were by this time placed on a sounder footing. The largest depot was at Bloemfontein; this possessed an annexe at Fischer's Farm, where debility horses were sent to be nursed and remounts conditioned. This place must engage our attention in somewhat greater detail, for here a model institution had been established under the organising genius of Captain Eassie, A.V.D.,<sup>\*</sup> who, being in sole charge of it, was given a free hand to develop the place on novel and original principles instituted by him. This place constituted the first success obtained by the Remount Department in the war. It formed a model on which all subsequent institutions were generally based, and brought to the Remount service the only credit it could claim during the war. We do not find, however, that either the institution or Capt. Eassie's name is mentioned in the Parliamentary Paper, Cd. 963, dealing with Remount work during the war, referred to at p. 124, though the place commanded the admiration of hundreds of visitors, including Lords Kitchener and Milner, attracted there by its well deserved reputation.

Fischer's Farm, when we last saw it in May (p. 59), was a depositing ground for the war-worn horses arriving at Bloemfontein in March and April.

Captain Eassie arrived at Bloemfontein shortly after its occupation, and took over the sick animals on the farm. About 1000 had already died, and the numbers of sick to be dealt with were enormous. The first care was water, the supply being limited to a masonry dam and some partly dry pools. A spring was found on the farm which was enlarged by the Royal Engineers, and for some time this formed the chief source of supply. From being a farm purely for the sick, it became a place to which not only were carefully selected debilitated animals sent for recovery, but where fit remounts were sent, until required by the Depot in the town of Bloemfontein for issue. The number of animals from these sources soon reached from five to six thousand, and the germ was then laid around which the whole

of the Bloemfontein remount operations subsequently centred. Its ultimate development was the result of expansion and experience. Until this officer was faced with the difficulties of managing 5000 horses with a limited staff, it had probably not occurred to him that with a little arrangement horses could be made to do a great deal for themselves. An unlimited water supply was essential to success, for 5000 horses take a long time to water twice a day. Inquiry showed that local inhabitants were aware of an underground sheet of water lying in porous rock held up by impervious strata. The existence of such water in the dry season could be traced on the surface by the greenness of certain scrub trees, notably the wild asparagus. The roots of this plant go down 30 feet or more to the water below, and as they obviously cannot pass through rock but between gaps in the strata, it sufficed to sink a shaft in a favourable position to ensure a supply, no blasting being required. With his local labour he sank in this way four wells, each of which yielded upwards of 12,000 gallons a day. These four wells not only watered the 5000 horses but furnished a supply for all other purposes connected with the establishment.

The wells laid the future development of the place, for everything was now possible. Large enclosures with shed stabling were erected, each having ample manging. The soil was sandy, nothing better could exist for the horses to lie and roll on, and every animal was loose. Each enclosure contained animals of the same class or same degree of fitness or unfitness. This is an absolutely essential feature where masses have to be handled, or the strong would prey upon the weak. So far, the arrangements were such as would be made by the ordinary knowledgeable man; we now come to the special features.

A large circular track half-a-mile round was fenced in, and so arranged that each horse enclosure communicated with it by means of a large gate. On the gate being opened the whole of the 500 or so occupants could be driven into the track, and in one or two lessons readily learned to start trotting steadily, the laggards being looked after by a couple of mounted men. In half-an-hour or so 500 horses had been exercised, the amount given them depending upon their condition. They were not returned at once to their enclosure, but were shunted from the track into another large place containing water troughs in series. Here they were given half-an-hour or so to fill themselves and settle down. The number of men employed in exercising and watering this number of horses was not more than half-a-dozen to regulate the gates and direct the mob.

While this was occurring the next batch of horses was being exercised. These in turn were driven into a watering enclosure, which the first batch had quietly evacuated. The latter then walked into the track once more, and so back to their own paddock. While the exercising was going on the food was placed in the mangers, being carried round by a cart, and by the time the

\* Now Major Eassie, D.S.O.



animals had returned from the watering place everything was ready for them. The whole operation was repeated again in the evening.

A plan of a depot arranged on these lines is shown in the plate.

Here, then, was a scheme by which, with a small amount of labour, immense numbers of horses could be taught to take part in their own care and management; exercise, watering and feeding following in ordinary sequence. These horses were not groomed, they cleansed themselves in their sand bath.

When required for the purpose of inspection or issue they were caught up by means of a "crush," a long narrow lane formed of stout fencing just wide enough to admit an animal. A funnel led to the lane, into this the horses were directed, and in a few minutes the whole length was filled. The animals were haltered, examined, and led out, or again turned loose. Three hundred horses an hour could be caught up by this means, and the more frequently they passed through the "crush" and were handled, the quieter did the wild ones become.

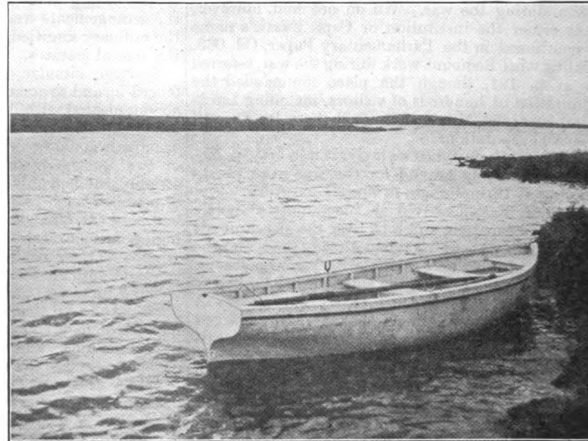
It was during the time of exercise that those which were lame were detected and subsequently "cut out." An inspection of the mass as it trotted by gave a good idea of the improvement the animals were making both in health and condition.

In a separate part of the farm was the hospital. It was arranged on the same lines as the depot, and had its own shelters, exercising ring, water supply, sand covered enclosures, and crush. Here

a grouping by diseases was adopted, cases of lameness, wounds, etc., all being kept together according to classification. The "crush" facilitated the dressing of wounds and proved itself a wonderfully time saving contrivance. No horses were tied up in the hospital if it could possibly be avoided; this was insisted upon as a special point. The Farm was run by Captain Eassie without the assistance of any combatant officer, and the subordinates consisted of natives of Africa and India. This establishment served as a type for other depots; the structural arrangements were more or less departed from at various places to suit preconceived notions, but the principle of making

horses do a good deal for themselves in the matter of their care and condition was not lost sight of. At no place, perhaps, were the results quite so good as at Bloemfontein, for the reason that the latter contained the master; the others were only pupils, and not always either apt or willing to follow a system of management due entirely to the organising genius of a veterinary officer.

When matters after months of work got into first-rate working order and the place was automatically running itself, Captain Eassie turned his attention to producing on the farm all the green crops required for resuscitating debilitated horses, but the irrigation required by these was a big undertaking. Beyond the small masonry dam nothing existed on this farm, any more than on 99 per cent. of other farms in South Africa, for catching and storing up the water which falls during the rains. The bulk of the water falling on the ground in this dry country is allowed to run away to the sea. Capt. Eassie showed what might be done in the storage of the surface water. He built a dam 260 yards long across a valley. The dam wall was 150 feet wide at the base, 8 feet at the top, and was 30 feet high. The area covered by the water was 150 acres, the greatest depth 21 feet. With this water he grew more material than the horses could consume, the surplus was sold in the market of the town, and after deducting all expenses connected with production there was a profit of £700 in six months. The dam is shown in the figure, it nearly filled during the first season. Even the boat was built on the farm!



THE DAM, REMOUNT DEPOT, FISCHER'S FARM, BLOEMFONTEIN.  
The "barrage" may be seen on the sky-line to the right.

This undertaking, carried out in war, showed what could be done in peace. The owner of the property, who returned to his farm after the war, must have been agreeably surprised at the improvements effected, and farmers in South Africa received an object lesson of what a single individual, not connected with the peaceful pursuit of agriculture, could accomplish. All this, however, is by the way. The work of organising a remount depot on novel and admirable lines is that with which Major Eassie's name will ever be associated.

THE VETERINARY SERVICE OF THE  
REMOUNT DEPARTMENT, 1899-1900.

Nothing has yet been said regarding the veterinary arrangements for the remount service. As the duties of the Remount Department comprised the local purchase of animals, the landing and issuing of remounts, the care of horses on debility farms, and later on the care of "protection and captured stock," it is evident that their requirements in veterinary personnel would be considerable. Owing to paucity of numbers they were frequently short handed, and it was some little time before the remount service realised that it could only receive a proportion of the veterinary staff. At any period of the war the Remount Department could have found employment for double the number of officers and C.V. Surgeons given them.

In the Cape Army there was a Senior Veterinary Officer of Remounts directly responsible for all veterinary duties to the Assistant Inspector of Remounts and the P.V.O. of the army. He was given his small staff, and had to make the best distribution of it. His duties were to inspect everywhere excepting in Natal, which remained a separate remount entity until near the end of 1900.

With such a large country it was impossible for a S.V.O. Remounts to be everywhere, so that during the second year of the war—a period only mentioned here as a matter of convenience—the veterinary duties connected with remount depots in the Transvaal, Orange Free State, and Natal, largely fell to the S.V.O.s. of those commands, while the S.V.O. Remounts, whose headquarters were Port Elizabeth in Cape Colony, was able to deal more particularly with that command. With the departure of Colonel Stevenson from Natal towards the end of 1900, and other changes which occurred later, it was possible to appoint one S.V.O. Remounts for the whole of South Africa. This led to unity of control and management, the change unfortunately came late.

THE HORSE QUESTION AT THE END OF 1900.

With a change in the plan of campaign adopted by the enemy, a corresponding change in meeting it had to be made. The earlier organized British columns, consisting of a small number of mounted men, incomparable infantry, and heavy guns pulled by oxen, together with miles of transport, patrolled

the country from point to point, laying waste the track on its route, blowing up farmhouses, capturing stock, destroying crops and mills, wearing-out horses, and doing no good so far as bringing the enemy to book was concerned. As the "Times History" \* aptly expresses it, "the British walked where they liked, and the Boers rode where they pleased, and under such conditions the campaign might have continued for ten years without any appreciable change."

At this time, as we have seen, p. 108, there were scattered throughout various parts of the Free State eight British columns, with mounted troops varying from 100 to 500 in number. These "marched solemnly about the country at an average pace of ten to fifteen miles a day." † The Yeomanry and Mounted Infantry Companies were largely utilised as mounted troops with these columns. The horse wastage was heavy from want of care. Sore backs, the result of ignorance rather than, as the "Times History" ‡ says, bad management, were unduly prevalent, for the fully-equipped Yeoman in the regulation outfit rode from 20 to 21 stone. Even at this time some weight had been reduced by the men deliberately throwing away much of the unnecessary material issued. If it be accepted that "the solitary advantage of these solemn processions over the country was that it kept the men in good health," °° the same cannot be said of the horses' backs.

It was evident from the beginning of the war that the Burghers could only be met by mobility; it was now clear that as he increased his mobility we would have to do likewise, so that an increased demand on the War Office for remounts followed the new order of things. Those who knew the country, but were never consulted, were aware that thousands of horses existed, certainly not up to 20 stone, but capable of carrying a well-armed man on terms equal to those of the Burgher.

A year after the war began we captured or brought in for safe custody thousands of horses, among which were useful, hardy animals, immune to local diseases, from which every imported horse suffered. They were brought in by columns in such large numbers that grazing within the outposts was frequently unobtainable in sufficient amount. On arrival it was no one's duty to look after them excepting the overworked Station Commandant, on whom the responsibility for local defence, feeding and refitting of columns, prisoners of war, intelligence, and a hundred other duties rested; added to which he, as a rule, had no knowledge of horses or their requirements, his chief concern being to prevent them being recaptured by the enemy. It is no wonder that under this system these animals died in large numbers! So far as is known, in only one place at this time was

\* Vol. V., p. 5.

† Idem.

‡ Idem.

\*\* Idem, p. 22.



any attempt made to deal with the question systematically, and that was by General Rundle at Harrismith. We have already seen the large amount of stock coming to him in August. For the care of this he directed his S.V.O., Lieut. A. H. Lane, to arrange a remount depôt under veterinary management, and this existed up to the end of 1901. This is not the period to examine the nature of the 1901 operations; some thousands of horses passed through the depôt, large numbers were issued to troops, most of them being animals brought in by columns and made fit to ride. Rundle utilised the horses instead of letting them starve, and, when opportunity offered, sent the breeding stock to Natal, as at this time it was determined to spare it for the future development of the country. Had some general system on these lines spread from this germ throughout the length and breadth of the area of operations, the British taxpayers' remount bill would not have been in two figure millions.

The stock of the country brought into military centres referred to above, consisted in the Transvaal and Free State of all animals, horses, cattle, and sheep; in Cape Colony it consisted of horses only. The first was spoken of as *captured* or *loot* stock, the Cape Colony animals were brought in to prevent their utilisation by the enemy, and were spoken of as *protection* animals, or *protected* stock. The latter term was unfortunate, unless intended in a Gilbertian sense; it is true they remained under the protection of infantry trenches, but otherwise they were left to shift for themselves, and died in enormous numbers from starvation. The actual losses will be considered in their proper place; what we are here considering is the neglect of the animal of the country as a source of remount supply. With the exception of the "Times History" and Dr. Conan Doyle,\* no other writers have placed their fingers on this extraordinary, almost wilful, neglect.

There were sufficient horses in Cape Colony to have served as a remount supply for the whole of the first year of the war, had we but cared to be firm where firmness was necessary, and have declared martial law. Even failing that they could have been bought at the owner's price—a far cheaper process than sending oversea for unfit animals. The Dutchman is only human, and gold tempts him as it tempts other people. The most bitter opponents of the British were the Dutch clergy; they directed that no supplies should be sold to us, yet there is a well known case where the pastor was not proof against a tempting offer for his own animals, and once he fell it was easy to deal with the flock. What was possible in this town, which was bitterly hostile, was possible everywhere. Money will buy any horse. It seems, however, to have been considered more economical to give a few pounds for an Argentine and kill him in a few

\* "The Great Boer War."

hours, than to give two or three times the sum for a fit animal of the country that would have lasted six months or longer.

Apart from this, the Remount Department said the animals were not obtainable in South Africa, we have this on the evidence of the Q.M.G. (*C. of E. Rem.*, Q. 13 quoted at p. 123 of this History). Further, we have it in the fact that cobs were looked for everywhere outside that country. In spite of the cable referred to by the Q.M.G., the remount people in Cape Town ought to have known something of the local supply. Lord Milner had been indefatigable in collecting information,† and there were colonial residents with wide local knowledge. But even had these sources of information not been forthcoming, there was that contained in the Secret Handbook dealing with South Africa, published by the Intelligence Division of the War Office a month or two before the war broke out, where in Appendix X the number of animals known to exist in Cape Colony in 1896-97 was as follows:—

Horses 201,535  
Mules 37,442

and this information did not include all the districts of the Colony, seven furnished no returns, and five of these had a big horse population.

With this information in his possession, the Staff Officer for Remounts on 3rd January, 1900, wrote to the War Office as follows:†

"We are buying no Colonials, leaving the field quite clear for the Colonial regiments, who buy for themselves better than we can buy for them."

It can hardly be supposed that these vast numbers were reserved in order to find the two or three thousand horses required for the Colonial regiments then being raised.

The fact is Cape horses were not required, the Argentine was in favour; the I.G. of Remounts at the War Office had pinned his faith to them as the result of a visit to that country. He would seem to have infected his subordinates, for in the letter above quoted appear the two following passages:—"We asked for more Argentines as they were undoubtedly better than the country-bred and land here cheaper. . . ." ; Again, "The man that bought these Argentines deserves the greatest credit." Three months later the writer of that letter had changed his opinion of the Argentine horse.

\* Among others, he employed Lieut. (now Major) A. H. Lane, A.V.D., who toured the country, including the Free State, and furnished him with valuable information, which it is apparent was not subsequently utilized by the military authorities.

† *Court of Enquiry Army Remounts Evidence*, p. 363.

‡ Major Lane in the article quoted at p. 123 says: "The horses bought in the Argentine for the South African war were the scum—the cheapest kind—costing about three pounds per head on the Estancia." He adds that he had seen three to four thousand of the class sold for 14s. to 16s. a head to be boiled down!

Mr. HUNTING : It is quite optional.

Mr. TOOPE : There was a suggestion from the north, I believe, that each society should increase its subscription so as to include the National subscription.

The PRESIDENT : Do you think it better to pay them through the society or direct.

Mr. TOOPE : Well, it will be more profitable to the National if they are paid direct, but I think we should increase our numbers largely if we paid through the societies.

Mr. E. W. BAKER : But would that be obligatory ?

Mr. TOOPE : Not unless they desired to become members of the National as well.

Mr. BAKER : I asked that question because much as I want the National to prosper and grow in numbers and influence, I don't want to reduce the membership of our individual or local societies by increasing the subscription.

Mr. SLOCOCK read an extract from a newspaper cutting to the effect that the Acton Bench of Magistrates were declining to accept the evidence of the R.S.P.C.A. Inspectors as professional evidence, and added that he believed they would find this course would also be adopted by other Benches of Magistrates in Middlesex.

Mr. DIER agreed that they could each of them bring a lot of influence to bear with their local magistrates to get an alteration in the same direction.

After a few further observations on the subject the proceedings terminated.

#### ANNUAL DINNER.

The annual dinner, which had been postponed from the December meeting, was held at the Princes Room at the Holborn Restaurant in the evening, the chair was taken by the new President (Mr. G. H. Livesey, of Hove), who was immediately supported by Mr. W. Hunting, the principal guest of the evening, Mr. J. B. Martin, of Rochester, and Mr. Theo C. Toope, the Secretary of the South Eastern Veterinary Association.

The customary loyal toast of the King was first submitted from the Chair, and this was followed by that of "Our Guests," which was also proposed by Mr. Livesey. With regard to their late President, Mr. Hunting, he felt quite incompetent to speak to them on the subject of Mr. Hunting, because there were many of them there who had known him much longer than he had, and had experienced at his hands probably even more kindness and help than he had. Mr. Hunting had now been a qualified veterinary surgeon for forty-eight years, and he told him that his course at College lasted two years, so that next month would witness his Jubilee. (Applause.) A good many veterinary surgeons carried on their profession mainly for the benefit of themselves. They were all of them out for the making of money, but some of them in the making of money also devoted their effort to scientific research and were a great help to their profession, and to the world, while others simply ran their own show, worked for their own personal benefit, and made their money in the shortest possible way. Mr. Hunting, he presumed, had made his pile ("You presume wrongly" from Mr. Hunting, and laughter), but during the whole course of his career he thought their friend had been in the extremely fortunate position of having made no enemies and of having made many friends. He did not think there was any man in the profession at the present time who was more widely respected and looked up to than Mr. Hunting. (Hear, hear.) If anyone was in trouble with their cases they had only to turn to him and he was always ready to bring his ripe experience to bear and to help them to the best of his power. He had given himself (the speaker) many a little wrinkle which he had found of great service, and no doubt it was the same with many others. He also thought their Society

had been very fortunate indeed in having secured his services for two consecutive years as their President, for he had not only given every satisfaction to the members but he had done honour to the Society. (Applause.) They also had with them that evening Mr. Toope, who was the hon. sec. of the new South Eastern Society and of the Southern branch of the National Veterinary Association. In both of those capacities Mr. Toope had proved himself a most indefatigable worker, and he had certainly put new life into the National in that part of England. Another guest whom they were pleased to welcome that evening was Mr. W. H. Brown, to whom they owed *The Record* every week, because while Mr. Hunting was the respected Editor of that paper, Mr. Brown was the publisher ; and, speaking personally, he desired to congratulate him on the successful way in which he eliminated the troubles usually associated with the printer's devil. It was very seldom that they saw any misprints in their *Record*, and it was one of the most welcome journals that came to their houses. It was with the greatest possible pleasure that he invited them to drink the health of their guests, coupled with the names of three gentlemen he had mentioned. (Applause.)

Mr. HUNTING, who had a cordial reception on rising, observed that he would liked to have avoided making any speech that evening as he really had nothing to say. After sitting there and listening to the President's flattering observations his natural modesty revolted against exposing itself. All he could say was this, that the two years he had been President of their Society might be divided into two distinct halves, during the first of which he did nothing, and in the second of which he had done very little. He had, however, had considerable pleasure in attending the few meetings he had attended, and he looked forward with even greater pleasure to attending some more of their meetings in the future, and perhaps, if he could think of anything worth bringing forward, of contributing to their discussion. (Applause.)

Mr. TOOPE, in the course of his response, observed that he was exceedingly thankful for the way in which they had received him as a visitor, because he could not get away from the fact that as secretary of an adjoining Society he had over-reached on some of their ground, although he must also say that it was ground they could not have easily worked themselves. With regard to the National, he was hopeful of making it more adapted to the present needs of their profession. He thought that there was a great deal of work for a really live National organisation to do. Unity is strength, and if they were united there was no doubt they could materially improve their profession. They in Kent had lately introduced two matters of considerable importance—the Fees paid to Veterinary Inspectors, and the Fees received from Insurance Companies. Both these questions would be carried on through the National, and he hoped, brought to a successful issue. He thanked them very much for the entertainment he had received at their hands, and he hoped to have the pleasure of meeting them all again on some future occasion. (Applause.)

Mr. BROWN also briefly responded to the toast. Their President had referred in very kind terms to the work he had been able to do for them, and he thanked him for it—it was always pleasant to know that one's efforts were appreciated. With regard to the formation of the South Eastern Counties Society, he thought the work Mr. Toope had done in that direction had been a benefit from a professional point of view, and he agreed with Mr. Toope that the new Society was not likely to affect the membership of their Society to any appreciable extent. Broadly speaking, the success of their meetings in point of numbers depended on railway facilities, and with all deference to their own Society he



thought it would also be an advantage in many ways if yet another Society could be formed for, say, the western end of the Southern Counties, thus leaving them with a more compact field of work. He was very pleased to see their Society continue to prosper in the way it had, and he thanked them for the kind words they had expressed towards himself.

Mr. SAMSON proposed the toast of "Their Society," coupled with the name of their President. (Applause.) Mr. Livesey was a gentleman whom they one and all knew, and he thought it promised well for the session that was in front of them that they were going to have him as their President. He was a gentleman who threw his heart and soul into whatever work he took in hand, and from what they knew of him at the Central he was sure they would have a good term of office under his Chairmanship. He invited them to drink the health of continued success to their Society, coupled with the name of their President. (Applause.)

The PRESIDENT, in reply, said he thanked them very much for the way in which they had received his name and that of the Society. He felt that a double honour had come upon him that day. In the first place he had been elected as their President, which had been one of his ambitions, and secondly he considered he was fortunate in being able to take the chair that evening, seeing that he had on his immediate right and left two of the oldest and most respected practitioners in the country. On calculating it up he found that the united years of professional service put in by Mr. Hunting and Mr. J. B. Martin amounted to one hundred and five years, and if he took the next two as well he found the total came to over one hundred and ninety years. He

need scarcely say that he felt very small that evening—(laughter, and a voice, "And very young.") Yes and very young. He was sorry Mr. Martin had had to leave before their toast list was reached because he was sure they would all have liked to have drunk his health. He was not only one of the oldest veterinary surgeons, but he was also one of the oldest and most respected members of that Society, and one who had worked very hard for its welfare and one who after fifty-seven years of active practice could still take a keen and active interest in their doings. (Applause.) He only hoped it would be his lot to live as long as Mr. Martin had if he were as keen and as active at his age as he was. (Applause.)

Mr. SLOCOCK said that there was one other toast which he thought they ought to drink, seeing that the health of the Society and the President had been combined in one, and that was the health of the Hon. Sec and Hon. Treasurer, Mr. Todd and Mr. Baker. (Applause.) They all knew how much of the success of a Society depended on these two officers, and in their case he thought the duties of these offices were carried out in a most exemplary manner. As far as an ordinary member could judge they both carried out their duties as well as anyone possibly could, and he thought they were particularly lucky as a Society in having two such active and efficient officials. (Applause.)

Mr. TODD briefly acknowledged the compliment on Mr. Baker's behalf and his own. Mr. Baker had seen many more years service with the Society than he had, but he had now had some nine years in the office, and he must say his relations with his fellow members had always been most pleasant in every way. (Applause.)

J. ALEX. TODD, Hon. Sec.

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Outbreaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
OT. BRITAIN.													
Week ended April 5	11		11				3	28	70	133	3	38	541
Corresponding week in	1912	17	31				6	11	74	126	...	69	576
	1911	21	30				1	1			5	62	568
	1910	29	40				10	18			10	26	257
Total for 14 weeks, 1913	185		202				49	168	1079	2267	108	505	6360
Corresponding period in	1912	343	388				52	114	1600	3687	144	859	10824
	1911	282	331		1	18	53	185			285	575	6399
	1910	434	539				103	275			298	323	2467

† Counties affected, animals attacked: Durham 4, Kent 2, London 8, York, West Riding 13. Board of Agriculture and Fisheries, April 8, 1913.

Period.	Anthrax.						Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Outbreaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported											
IRELAND.															
Week ended April 5	...	...	...	...	...	...	...	...	...	...	...	...	2	10	2
Corresponding Week in	1912	...	...	...	...	...	...	...	...	...	...	...	5	12	131
	1911	...	...	...	...	...	...	...	...	...	...	...	7	8	18
	1910	...	...	...	...	...	...	...	...	...	...	...	7	2	8
Total for 14 weeks, 1912	...	...	...	...	...	...	...	...	...	...	...	...	76	220	40
Corresponding period in	1912	...	1	1	...	...	...	...	...	...	...	...	27	213	64
	1911	...	3	3	...	...	...	1	1	...	...	...	36	209	38
	1910	...	4	6	...	...	...	...	...	...	...	...	25	261	13

† These figures include animals slaughtered and found affected on post-mortem examination. Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, April 7, 1913. NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

#### Failure of the Foreign Cattle Market.

A meeting of the Corporation, at which the Lord Mayor presided, allusion was made to the financial position of the Foreign Cattle Market at Deptford.

The Cattle Markets Committee stated that no animal had been landed at the market since December 24 last, and there was no immediate prospect of any shipments to the market from North America or elsewhere. The supplies for the first three months of 1910 were 25,075; of 1911, 20,767; and 1912, 14,176. In the latter half of last year about 8,000 animals arrived from Ireland out of a total of 682,000 shipped from Ireland to avoid the foot-and-mouth disease. The deficit on the market had been £31,007 since 1907, of which £16,695 was incurred last year. This year's deficit could not, under the most favourable circumstances, be less than £10,000. There seemed to be no reasonable probability that live cattle would be again shipped from the United States or Canada to this country in any considerable number. The market has an area of 28 acres, and the total outlay upon it has been £587,700, of which £158,200 is still outstanding. The site, with its river frontage, landing stages, covered buildings, and other facilities, offers unique advantages for cold storage and warehouse accommodation, and informal suggestions as to its utilisation as a depot for colonial produce had already been before the committee. While the committee were loth to suggest any precipitate action as regards the closing down of the wharf and market as a whole, they felt that the time had arrived when they should be empowered to consider the necessity, or otherwise, of retaining all, or any part, for market purposes, with authority to invite, consider, and report upon proposals for dealing with the property.

On the motion of Mr. D. George Collins, chairman of the committee, the recommendations were agreed to, and the committee were empowered to take the steps indicated.

#### The Veterinary Slander Case.

In the Court of Session on Thursday, March 27th the trial was concluded of the action in which Dr. O. C. Bradley, Principal of the Royal (Dick) Veterinary College, Edinburgh, sued Messrs. Menley and James Ltd. of London, for £500 damages in respect of alleged slander. The pursuer complained of advertisements published by the defenders, who are manufacturers of medicinal preparations for veterinary purposes. An advertisement, which appeared in *The Veterinary Journal*, and purported to be copies of certain "Recent Clinical Reports," included the terms, "Prof. —, D.Sc., —, Scotland," and stated that the preparation in question had been tested "at the College." The pursuer stated that he was the only professor in any veterinary college in the United Kingdom who held the degree of Doctor of Science, and that fact was known throughout the profession. He stated that these advertisements represented that he had given to the defenders written testimonials regarding their special preparation, whereas he had given no testimonials, nor made any statement in favour of the preparation. The giving of such testimonials by members of the Royal College of Veterinary Surgeons was forbidden, and was regarded as a breach of professional propriety, and disgraceful to a member of the pursuer's profession. The defenders, who denied slander, pleaded that the advertisements were not reasonably capable of bearing the innuendo put upon them by the pursuer. They stated that in November, 1911 one of their representatives called on the pursuer with a view to interest him in the preparation in question. The pursuer received a sample, and some months later the defenders' representative again called on the

pursuer. The latter stated that the sample had been thoroughly tested, and that it had proved superior to other preparations used at the College. That was duly reported to the defenders by their representative. In these circumstances the defenders stated that they were warranted in issuing in the advertisement the language complained of. In any case they were in entire *bona fides* in doing so. With regard to a typewritten document which purported to be a recommendation by the pursuer, who was named, the defender said that five copies were, contrary to their instructions, sent out by one of their employees in answer to inquiries regarding the special preparation. On discovering the mistake the defenders wrote to the pursuer expressing regret, and informing him how it occurred. They also wrote giving a full explanation to the Registrar of the Royal College of Veterinary Surgeons. The typewritten document complained of had been withdrawn, and the advertisement complained of would be discontinued. The defenders had no intention of slandering the pursuer.

The pursuer denied that he discussed the preparation with the defenders' representative. Evidence at some length was led.

The Lord President, in his charge to the jury, said the point they had to consider was whether, taking the advertisement as a whole, it represented that the defenders had received from the pursuer a written testimonial for publication. If they found that the fair conclusion from the advertisement was that no written testimonial was granted, that was an end of it. But supposing that they found that the fair meaning was a representation that a written testimonial had been granted, it was admitted that Dr. Bradley did not grant such a testimonial, and the next point was whether the advertisement falsely and calumniously represented that he had done an act contrary to professional etiquette and professionally disgraceful. Was it the fact that if you falsely said of that gentleman that he had granted that written testimonial, you therefore held him up to the world as having done an act contrary to professional etiquette and professionally disgraceful? "Disgraceful" must mean disgraceful in the general opinion of the profession. It would occur to them that it was pretty clear that the leaders of the profession had been getting somewhat more strict in that matter lately than they were before, and they were entitled to look historically at what the views of the profession had been. Obviously there had been an effort to draw the line tighter, but if the effort had only been made concurrently with the present case it was more difficult to say that it was an act intrinsically "disgraceful" at the time the accusation was made. The matter was not covered by the bye-laws, although that was not conclusive, because the term "disgraceful" was not necessarily limited to everything stated in the bye-laws. They must take the general idea of the profession, not the idea of the leaders nor the idea of the discredited man, but the ordinary professional man. With regard to the question of damage, it was not a case where there was any actual damage in the sense of loss of fees or damaged professional position. The Veterinary Council had accepted Dr. Bradley's denial, and had moreover received a letter from the defenders in which they admitted that they did not get any written testimonial from Dr. Bradley.

On record the defenders made a tender of £5 and expenses.

The jury, after fully an hour's absence, returned a unanimous verdict for the pursuer, assessing the damages at sixpence on each of the three issues submitted to them.

Counsel for pursuer: Mr. Watt, K.C., and Mr. Christie. Agent: Robert Anderson, S.S.C.

Counsel for defenders: Mr. Constable, K.C., and the Hon. William Watson. Agents: Finlay and Wilson, W.S.



**Foundation Stone of Department of  
Agriculture at Armstrong College, Laid by  
Dr. Clement Stephenson.**

The foundation stone of the new buildings for the Department of Agriculture at Armstrong College, Newcastle was laid on Saturday by Dr. Clement Stephenson, F.R.C.V.S. For this ceremony academic robes were worn, and a procession from the College to the site adjoining the Art School took place.

This new and important addition to the College buildings was made practicable by the generosity of Dr. Stephenson who offered £5000 to assist the Council of the College in co-operating with the Board of Agriculture for the purposes of the scheme proposed by the Development Commissioners. Under the scheme, the Council of the College was requested to undertake an extended sphere of agricultural operations particularly in the direction of advisory departments for the benefit of farmers in the North of England. The Council readily agreed, and readily accepted Dr. Stephenson's gift. Plans were prepared which provided accommodation for the whole of the Agricultural Department—of which Prof. Gilchrist is the head—in addition to the laboratories required under the Development scheme.

Beautifully bright but windy weather prevailed for the foundation stone-laying, which was watched by a large company.

Earl GREY as President of the College, exercised the privilege of calling upon Dr. Stephenson to lay the foundation stone.

Mr. W. H. KNOWLES, the architect, stepped forward and presented to Dr. Stephenson a silver trowel, suitably inscribed, and also a framed painting in water colours of the Agricultural College buildings as they will appear when complete. He mentioned that it was the work of one of the Art School staff.

Dr. STEPHENSON having declared the stone well and truly laid, expressed the wish that the College might be a very great success.

**THE LUNCHEON.**

The company subsequently sat down to lunch in the King's Hall of the College.

Earl GREY proposed "The King," and the toast was duly honoured.

Principal W. H. HADOW, M.A., D.MUS., submitted the toast of "H.M. Board of Agriculture and Fisheries," and after regretting the absence, owing to illness, of Lord Barnard, accorded to Mr. Runciman and the Board he represented, cordial welcome.

**MR. RUNCIMAN AND THE EXAMPLE.**

Mr. WALTER RUNCIMAN (President of the Board of Agriculture), in responding, acknowledged that Northumberland had set an example, in that their predecessors were prepared to learn from the experience and practice of other people. That precedent was one which, in the new building and under the new organisation, he hoped Northumberland would still follow. There had been good work done in the past in Northumberland, and if Arthur Young was a benefactor, his successor, in another form and after another method, was Dr. Clement Stephenson, whom they were honouring that day. (Applause.) Dr. Stephenson had the satisfaction during his life of knowing how grateful his fellow-countrymen were for his gift. In the past, the work which had been done in Northumberland, at Cockle Park, had been largely of a local character. Isolated efforts had been the characteristic of agricultural work up to the present time. At the Royal College at Cirencester, at Woburn, at Wye, at Preston, and in the Agricultural Department at Armstrong College, excellent work had been done and had repaid the

expenditure tenfold by the prosperity it had brought to farmers. He hesitated to use the word "prosperity" in connection with farming, for he had never found a farmer who would "own" his prosperity. But at any rate Cockle Park had reduced the losses of the Northumberland farmers. Owing to the work at Cockle Park, finger and toe had become almost unknown on up-to-date farms. There must be no more impassable barriers. Knowledge acquired in Northumberland or elsewhere, must be distributed elsewhere. The nation must bear a fair share of the cost of experiment and research which was done for the nation's good. The work that he had undertaken in the last eighteen months had mainly centred round the organising of research work and the establishment of agricultural education on a purely national basis.

**FUNDS WAITING FOR AGRICULTURISTS.**

For the first time in the history of England, they had large funds lying waiting for the agriculturists to apply in the pursuit of their own industry. When Dr. Stephenson was first connected with Armstrong College, some 20 years ago, the total amount distributed by the Board of Agriculture for agricultural education was under £3,000. It now had money to distribute which ran into six figures. If agricultural instruction and experiment were not on wide lines, we should throw away a great part of our national advantage. In the first place, the Board had decided that some of the money must be distributed for the purpose of agricultural research. There was no great agricultural country that spent less on research than we did. It had therefore been decided that some £34,000 should be used for research on plant physiology, plant breeding, plant pathology, plant nutrition (soil), fruit growing, animal pathology, animal nutrition, dairying problems, on matters concerning the over-production of insects, on zoology, and last and by no means least, on the economics of agriculture. This did not cover the whole range of agriculture's intellectual activities, but these were some of the main problems which it was needful for national purposes to deal with urgently. With the best of the scientists turned loose on these problems the next thing to be faced was the putting of the results to practical service. The only way in which that knowledge could be pooled and passed on to others was to use the great Department of which he had the honour to be the head as a clearing-house. It could be done mainly through those who were responsible for agricultural education and instruction.

Proceeding to outline the scheme for the distribution of agricultural knowledge, Mr. Runciman mentioned that full advantage of this knowledge would be available at the colleges in the twelve great agricultural centres of the country. There would be one, or two, or three men who were capable, not only because of their scientific knowledge but because of their practical experience, of translating into terms of practical farming the lessons that had been learned in research institutions. In Newcastle, the Armstrong College would have £1,000 a year provided in order to pay for two such men. Farmers always assessed a thing by its practical value, but he did not despair of the farmers of England changing their methods bit by bit. One of the difficulties they would have would be to prove to the farmers that the changes were good things. But the farmers themselves were showing signs of curiosity. The inquiries at the Board of Agriculture were far greater than most people imagined. Farm schools would be provided as soon as these were wanted. Three quarters of the capital costs would be met by the funds, and for the upkeep the Board would provide on a generous basis. He had looked carefully into the provisions of the four Northern counties, and so far as he could see, they would certainly receive £2 for maintenance for every £1 which they put



One of the most important factors was the provision of men, and they had acquired from the Development Fund, in addition to the £34,000 for research and the £12,000 for the advisory work, £15,000 a year for scholarships.

#### LIVE-STOCK BREEDING.

The best example he knew of a practical scheme being worked on a national basis was that which could be done for farmers through breeding. They had linked on to the education and research scheme a live stock scheme, so that farmers might be enabled to get in the future, for the same cost to them as they had paid in the past, rare good sires for the purposes of breeding. There would be live stock organisers for carrying out that scheme. Nearly £30,000 had been released from the Development Fund for the live stock schemes, including the milk record scheme, and the schemes for heavy horses, bulls, and boars. The agricultural scheme was now welded together. It combined the theoretical with the practical. There were no gaps in the scheme. That educational scheme aimed at (1) securing for the study of agriculture a share of the best brains in the country (as a means to that end grants were to be made to Armstrong College and similar institutions); (2) securing skilful and well-trained practical instructors (as a means to that end grants were to be made to the Local Education Authorities in order to enable them to appoint organisers who could supervise the whole of the local work); and (3) securing co-operation between those engaged in and responsible for both types of work, for which end had been set up the Advisory Councils.

LORD GREY next proposed the health of Dr. Clement Stephenson, and observed that Mr. Runciman's speech had given them a new hope—the new hope that the organisation of the State would be used in future, with the assistance of agricultural colleges, to offer the farmer in the land the result of research work conducted by research societies and enterprising farmers in every part of the United Kingdom. He had also convinced them that, in Mr. Runciman, they had a Minister whose powers of lucid exposition would enable him to obtain such funds as would be necessary to enable the old industry of agriculture to be pushed in a way that it had never been pushed before. His personal experience, both in South Africa and Canada, of the way in which State endowments had been liberally used for the purpose of supplementing and extending agricultural education had recently made him feel quite mortified to think that our own country was so far behind in that matter. Experience had already taught the taxpayer of Canada that money expended wisely on agricultural research returned as nearly as possible tenfold. Passing on to the subject of his toast, Earl Grey gave a short and interesting résumé of Dr. Stephenson's career, and said he graduated at the Royal College of Veterinary Surgeons in 1856, and he had been hard at work ever since. He commenced breeding and farming in the seventies, and had a name widely known and esteemed wherever the Aberdeen-Angus herd was produced. As a judge of stock he was second to none, and people always appreciated that, whatever the verdict which came from his lips, it was a verdict which no man could call in question. He was most painstaking and patient, and whatever his hand found to do he did it with his might. (Applause.) As a veterinary surgeon he was the first to stamp out pleuro-pneumonia, and although he had often been abused for his strong action, he was absolutely fearless, and the result of his fearless action, inspired as it was by his high sense of duty, had caused him to be a benefactor to the whole country. If he (Earl Grey) were asked who was the best citizen, he would reply, the best citizen was the best educated man; and if he were asked who was the best educated man, he would reply, the man who was most saturated with

the co-operative spirit; who was able to work with all and for all; and that was the man Dr. Stephenson had been. (Applause.) Like Cecil Rhodes, Dr. Stephenson's one idea through life had been to work for the Empire. They all hoped he would be long spared to see the fruits of his industry as represented by his generous gift to that College. (Applause.)

Dr. STEPHENSON, in his reply, reviewed the work with which he had been associated at the Armstrong College. Good work had been done there in the past, and he hoped good work would be done there in the new agricultural college. The prospects were very bright.—*Newcastle Daily Chronicle.*

#### Action for Wrongful Conversion against a "Veterinary Surgeon Operator."

At the Essex Assizes, at Chelmsford, before Mr. Justice Pickford, without a jury, Mr. Frank Searle, of Burnt Mill, claimed damages from Mr. Neville Marshall, veterinary surgeon operator, of Harlow, for the alleged wrongful conversion of a horse. Mr. S. Duncan was for the plaintiff, and Mr. H. Morris for the defendant.

The case for the plaintiff was that he lent a horse to the Rev. W. Husking, Rector of Moreton, the arrangement being that the Rector was to stable the horse and have the use of it, but that the plaintiff was to have the horse when he wanted. The horse fell in the Rectory stables, but the defendant advised that it would not take many days to get over the injuries it sustained. A few days later, however, defendant took the horse out of the stable, borrowed a gun, and shot it.

Plaintiff, in evidence, said he was a church organist. He bought the horse in 1911 for £16; he now claimed £25 for it and a guinea for a veterinary surgeon's fee.

Cross-examined, plaintiff said he bought the horse for riding and driving. He did not let the Rector have the use of it because he knew it would not have much to do when with him.

Mr. Morris asked if it was not the fact that on one journey of seven miles the horse collapsed and had to be rested at a farm.

The plaintiff would not admit it collapsed, but said it was taken out of the trap and rested.

Further cross-examined, the plaintiff said that probably the horse's eyelids were swollen, but he did not notice that the hair on the hocks was rubbed off nor did he see that the walls of the stable were covered with blood.

Evidence was given by Mr. Matthew Torrance, farmer, who, in cross-examination, stated that the defendant was up-to-date in his methods, and had a large practice all over the country.

Mr. George H. Harris, M.R.C.V.S., of Sawbridgeworth, who made a post-mortem examination of the horse, said there were indications that the animal had had plenty of food.

The Rev. W. Husking said he found the horse cast in the stable. He went for Mr. Torrance, and, owing to a misunderstanding, there was some delay in getting a veterinary surgeon.

Cross-examined, when the horse had been down in the stables some of the hair had been rubbed off, and the eyelids were swollen; it was groaning, but it was an exaggeration to say the walls of the stall were covered with blood. The horse did not collapse on the way back from Epping, but it would not trot; it walked the last three miles.

The defendant stated that on June 20th last he was asked by Mr. Husking to see the horse. When he arrived at the stables defendant and Mr. Husking were there. The horse was struggling and moaning. On the walls of the stables and under the manger were patches

of blood. The left eye was as large as an orange, and the right eye was as big as a coconut. The knees and fetlocks were swollen, and the hip on which it was resting was raw. It was in a terribly emaciated condition, suffering from anemia, and must have been so suffering for 24 months. He told the plaintiff that it would take a long time to recover. The plaintiff said he was a poor man, and if it were going to be a long and expensive job, he would sooner have it shot at once. He admonished the plaintiff for letting it lie in the stable for so long a time, and had it slung. It was obvious that it would take a long time to recover. The left knee measured 26 inches round instead of 12. Subsequently he found the tissues were breaking down, and it was quite beyond surgical skill. To destroy it was the only proper thing to do. He was going to chloroform it, but seeing a gun loaded in the stable, decided to shoot the horse. Witness considered that he acted properly in shooting the horse, he having been called in to treat it, and also having regard to what plaintiff told him.

Cross-examined, defendant said the horse had not been properly fed up to the time he saw it. The stomach could not hold a peck of oats.

Mr. Stanley Gingell, farmer, Pattiswick, formerly a premium pupil of defendant's, said he went with Mr. Marshall to see the horse, and agreed that shooting it was the most proper and merciful thing to do.

Cross-examined: The horse had not had enough food to keep it alive. He never saw a horse so bad in all his life.

James Salisbury, a stud groom, who sold the horse to the plaintiff for £16, said it was in good condition then, but subsequently, when he saw it again, it was in a bad state.

Counsel having addressed the Judge, his Lordship said it was a curious case. The point was whether the defendant had authority to shoot the horse. He was satisfied he had not. What the plaintiff did say was that, if it was going to be a long and expensive job he would rather have it shot at once. But the defendant put it under treatment, and that did not seem to him (the Judge) to confer authority to afterwards shoot the horse. Technically the defendant would be wrong; but if the horse was in such a state that it worth nothing, there would be no damage. Really the substantial question was whether this horse was worth anything at the time. He could not accept the statement that the horse was starved, but he could not but feel that the question as to the condition of the horse lay between the two sides. He was inclined to think, too, that the defendant acted hastily. His Lordship concluded by giving the plaintiff the verdict for £5 damages, with such costs as the law allowed. He said he did not believe that, having regard to the condition of the horse, anybody would have given more for it.

#### Pig Marking in Ireland.

Before the magistrates at Ballaghadereen Petty Sessions, three members of the All Ireland Pig Buyers' Association—Richard Cooke, John Dempsey, and Francis M'Gowan—were charged with cruelty by marking pigs in a manner likely to cause unnecessary suffering. It was alleged by the police that the sides of the animals were scored to the extent of from four to six inches, and were bleeding.

Mr. Kerr, v.s., for the Department of Agriculture, said the incisions were cruel and unnecessary.

Mr. G. Jarrett, v.s., for the defence, maintained that the marking did not inflict substantial suffering.

Mr. P. M'Kenna, President of the Pig Buyers' Association stated that the marking was an invariable custom and absolutely necessary for the identification of swine after slaughter.

Mr. Mannion, solicitor, for the defence, urged that sickening sentimentalism and humbug should not be allowed to interfere with an important industry. It was not likely, he maintained, that defendants would ill-treat their own property.

The Court, believing that a less crude instrument than a knife should be used, imposed nominal fines of 2s. 6d. in two cases. Notice of appeal was lodged.

#### PARLIAMENTARY.

##### BILL PRESENTED.

In the House of Commons on Tuesday, April 8. The following Bill was presented and read a first time.—

Mr. W. GUINNESS.—A Bill to make further provision for the protection of animals from cruelty.

#### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, April 8.

REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. and Brev. Maj. A. G. Todd to be Major. Dated April 1.

SPECIAL RESERVE OF OFFICERS.

ARMY VETERINARY CORPS.

Lieut. A. S. Mathias is seconded for service under the Colonial Office. Dated March 22.

Col. C. Rutherford, C.B., C.M.G., who recently arrived from India will join at Salisbury and take up the duties of Assistant Director of Veterinary Service, Southern Command.

Capt. G. T. T. Jackson on arrival from India has been posted to Glasgow for duty.

An exchange on the Foreign Roster has been sanctioned between Maj. P. J. Harris, Fermoy, and Capt. H. Gamble.

#### Personal.

ANDERSON.—At 134 Bonnygate, [Cupar, Fife, on the 3rd April, the wife of R. G. Anderson, F.R.C.V.S., of a daughter.

Mr. ADAM SIEVWRIGHT, v.s., Tarland, was on Saturday, 29th ult., made the recipient of a handsome 10-12 H.P. Swift four-cylinder motor car, subscribed for by a number of friends and well-wishers as a token of their esteem and respect for him. Mr. Sievwright is a native of Keith, and studied at the New Veterinary College, Edinburgh, and gained his Diploma as a Member of the Royal College in April, 1878. He was assistant to Mr. MacGillivray at Banff for a short time, but has been in Tarland since 1878, where he is justly esteemed and enjoys a wide practice. A deputation consisting of Messrs. P. Strachan, East Town, Tarland; Wm. Thomson, banker, Tarland; Proctor, Ballater; and Alex. Sanderson, Aboyne, were appointed to wait upon Mr. Sievwright and make the presentation. Mr. Strachan, in doing so, said that Mr. Sievwright had lived among them for thirty-five years, and all his patrons in the various districts in which he had practised have had a feeling for some time that they would like to make some recognition of his valuable services, and to show the high esteem in which he was held. The gift was raised by public subscription, and when the list was

closed, 560 had subscribed, headed by His Majesty the King, who gave a handsome donation.

Mr. STEVWRIGHT thanked Mr. Strachan and the subscribers for the magnificent gift and token of respect and esteem. During the many years that he had gone in and out among them and the farmers in the district he had received nothing but kindness and considerations from all classes that he had come in contact with. To be the happy possessor of a motor car subscribed for by over 500 subscribers was something to be proud of.

Mr. W. J. E. MACKENZIE, M.R.C.V.S., has been appointed by the Midlothian County Council as veterinary surgeon for the purposes of Section 43 of the Public Health Act.

Mr. HUGH BEGG, F.R.C.V.S., Hamilton, has been elected President of the Lanarkshire Association of Local Government Officers.

Mr. T. VALENTINE PETTIFER, J.P., F.R.C.V.S., was returned to the Board of Guardians and Urban District Council at Tetbury municipal elections.

Mr. PETER YOUNG, M.R.C.V.S., gave an interesting lecture on parasitic and infectious diseases at a meeting of the St. Andrews and East of Fife Farmers' Club recently. He pointed out how much could be done to prevent the spread of diseases. Anthrax, he contended, might be dealt with more effectively if the food stuffs imported from Egypt and India, where the disease was rampant, were subjected to a disinfecting treatment. Mr. Young showed a number of slides on the screen, depicting parasitic forms and their action on animals. —*The Scottish Farmer*.

Mr. WILLIAM BROWN, M.R.C.V.S., Banchory, who has been appointed lecturer in Veterinary Hygiene at Aberdeen, in succession to the late Mr. J. M'Lauchlan Young, is twenty-eight years of age; he graduated M.R.C.V.S. at the Royal (Dick) Veterinary College, Edinburgh, in 1908. As a student he had a distinguished career, winning many prizes and honours. For some time in 1908 he was in practice at Elgin as assistant to Mr. Clement Baxter, following which he was in practice in Shropshire. In 1909 Mr. Brown studied under Professor Mousu in Paris, where he acquired an extended knowledge of his profession. Mr. Brown was well recommended for the position to which he has been appointed. Mr. J. R. U. Dewar, formerly Principal of the Royal (Dick) Veterinary College, wrote:—

"Mr. Brown studied for his profession at the Royal (Dick) Veterinary College during the later years of my Principalship, and was undoubtedly one of the best students who passed through during that time, gaining many medals and prizes, and making for himself quite a distinct position. Some time after he qualified, and had been in practice, Mr. Brown went to France to prosecute his studies, in order to equip himself better for meeting the difficult problems that are still plentiful in everyday practice, and continued his studies at the Veterinary College at Alfort and the Pasteur Institute of Paris. This gives him a considerable advantage over his less fortunate confrères."

Principal Bradley, Royal (Dick) Veterinary College also wrote; and flattering testimonials as to his fitness for the post to which he has been appointed were also submitted from Dr. Leighton, Professor of Pathology, Bacteriology, and Meat Inspection, Royal (Dick) Veterinary College, Edinburgh; Mr. Arthur Gofton, F.R.C.V.S., Professor of Medicine in the same college; and Mr. R. Stewart MacDougall, Consultant Entomologist to the Highland and Agricultural Society, and Professor of Biology at the Royal (Dick) Veterinary College. Since settling on Deeside, Mr. Brown has carried on a large and growing practice, and is inspector of contagious

diseases for north of Kincardineshire. Out of over 1,800 competitors he gained the first prize in the Harmsworth Self-Educator examinations in the group of subjects—biology, psychology, and logic.—*N. B. A.*

I, THEODORE JAMES FAITHFULL, heretofore called and known by the name of THEODORE FAITHFULL-DAVIES, of the Town of Hadleigh, in the County of Suffolk, Lieutenant in the Army Veterinary Corps (Special Reserve), HEREBY GIVE PUBLIC NOTICE that on March 31st, 1913, I formally assumed and adopted and determined thenceforth on all occasions whatsoever to use and subscribe the surname of FAITHFULL as my only surname, in lieu of the surname FAITHFULL-DAVIES heretofore used by me. I therefore formally declare that I intend at all times hereafter to be called, known, and described as THEODORE JAMES FAITHFULL exclusively. Dated this second day of April, 1913.

T. J. FAITHFULL,  
The Cottage, Late T. J. Faithfull-Davies.  
Hadleigh, Suffolk.

#### OBITUARY

DAVID CONSTABLE, M.R.C.V.S., Inchture, Perthshire.  
Graduated, Glas.: April, 1871.

The death took place at his residence at Inchture on Saturday, March 22, of Mr. David Constable, M.R.C.V.S., a very highly respected member of the community. After a highly distinguished career as a student, Mr. Constable graduated with honours at the Glasgow Veterinary College in 1871. At the conclusion of his studies he was appointed principal assistant to Professor M'Call at the Glasgow College, and in that capacity he acted for two years. On coming to Inchture forty years ago he soon earned a high reputation as a veterinary surgeon, and worked up an extensive practice, which he maintained successfully until health began to fail. Mr. Constable, who was seventy years of age, was for many years a member of the local School Board, and some years ago was elected chairman of the Parish Council, of which body he had been a member from the time of its inception. He is survived by Mrs. Constable and two of a family.—*N. B. A.*

CHAS. M. LAWTON, M.R.C.V.S., 21 Goldington Road, Bedford.  
Graduated, Lond.: May, 1894.

Mr. Lawton died on April 5th at Stragaden House, West Cliff Road, Bournemouth, from septic throat, followed by septicæmia. Aged 39 years.

R. P. THOMAS, M.R.C.V.S., Vety. Officer, Mombasa, British E. Africa Protectorate. Lond.: July, 1896

Mr. Thomas's death is announced as having occurred on Feb. 24th.

N. JULIAN, V.S., 249 Goldhawk Road, Shepherd's Bush, W., died on April 3rd, at Hammersmith Infirmary at the age of 77 years.

REUBEN MUNSLOW, V.S., Kington, Herefordshire, died on April 2nd at The Laurels, Duke Street, Kington, from chronic nephritis. Aged 63 years.

The death has taken place at Aspatria, Cumberland, of a remarkable man in Mr. John Holliday, who was for over forty years druggist and dispenser to Mr. H. Thompson, M.R.C.V.S. Mr. Holliday, who was seventy-three years of age, after being educated at his village school, was sent to Andrew Bell, a noted schoolmaster in the district, under whose tuition he developed a great aptitude for mental arithmetic. Up to the last he could calculate mentally grains, minims, and fractions with the greatest of ease and rapidity; in fact, his skill was little short of marvellous. His knowledge of Greek, Hebrew, and Latin was also remarkable. He could at



once give the derivation of any word mentioned to him, while in English history few could approach him, he being able at a moment's notice to give dates concerning the reigns of kings and queens, and what battles were fought during their occupancy of the throne. Mr. Holliday had lived a long and useful life, and passes away greatly respected in the community in which he dwelt for so many years.—*N. B. A.*

The date of Mr. A. Ferens' graduation (whose death was noted last week) should read 1895.

*In Memoriam: William Gosser.*

"We ne'er shall look upon his like again."

Why grieve ye for the dead?

Life's but a game of chess—

A player more or less,

When of the best, 'tis said,

Makes very little odds,

Be sure the move is God's!

\* \* \*

And at the *Dei Vox*,  
Kings, Knights, and Bishops leave the game,  
"Deceased," "Removed"—"What's in a name?"  
Great-hearted! just! HE "played the game,"  
His epitaph—"Toujours le même"—  
I would we all could say the same,  
*Ere shut up in the box!*

CHAS. C. ABRAM, M.R.C.V.S.

Walsingham.

### CORRESPONDENCE.

#### VETERINARY INSPECTORS' CONFERENCE.

Sir,

The Conference of veterinary inspectors in London on Monday was a memorable one, both in regard to numbers (more than a hundred and seventy inspectors were present), to the interest displayed in the proceedings, and to the amount of valuable work accomplished. A full account of the proceedings will appear in your columns in due course, but owing to the interest taken in the movement by gentlemen who, for various causes, were unable to be present, and in view of the fact that the date on which the Tuberculosis Order comes into effect is close at hand, I am venturing to ask you to allow me to give a very brief account of a few of the more important decisions arrived at.

Firstly, then, it was considered of vital importance that *microscopical examinations of milk samples and other suspected material for detection of Tubercle bacilli, should be carried out by the inspector himself*, and a resolution to this effect was proposed by Mr. Garnett and carried *nem. con.* It was pointed out by several speakers that this essential aid to diagnosis was easily within the capabilities of any one claiming to be a competent veterinary inspector, that expertness is soon acquired with practice, and that a little study at a laboratory is all that is necessary to enable one to grasp the required technique. One must, of course, provide oneself with proper appliances consisting of a centrifuge, a mechanical-staged microscope with a twelfth oil immersion lens, and the necessary staining reagents.

In connection with the microscopical examination of samples of suspected milk, a valuable hint was given by Mr. Brittlebank, of Manchester, viz.: that before the specimen is removed from the udder or quarter, nearly the whole of the milk should first be withdrawn, the udder being then well massaged and squeezed and the remaining two or three ounces of milk removed for examination. By the adoption of this method, Mr. Brittlebank says the bacilli will be quickly discovered in 65 per cent. of cases of infection.

Another important point made clear was that when one diseased animal is discovered in a herd, the inspector's examination does not terminate with that animal but must be extended to all the remainder.

Also, where Tubercle bacilli are discovered in mixed or bulk milk, and where no evidence of udder disease is forth-

coming to account for their presence, it may be necessary, where many animals are concerned, to divide them into small lots of two or three, examine the milk from each lot and again subdivide these until the responsible cow is found. All this means much labour and time, and should be taken into account when discussing the question of fees.

Again, the absence of Tubercle bacilli in the smears of milk from a suspected udder must not necessarily be regarded as final evidence that the gland is not tuberculous; examination of several samples taken at different times may be necessary, and occasionally the biological test will also be needed.

With reference to the use of tuberculin it was regarded as of great importance that this should be of reliable manufacture, and when not obtained freshly-made from a home laboratory, a guarantee that it is of recent manufacture should be insisted upon.

Questions as to the disposal of carcasses of animals slaughtered under the Order were raised, and the reply was that these become the property of the Local Authority, and will not necessarily be destroyed; in other words those which are suitable may be dressed for food, and it may be part of the duty of the veterinary inspector (in the absence of a meat inspector) to examine these carcasses relative to their fitness for this purpose.

It is much to be regretted that the time available for the second part of the Conference (that dealing with the formation of an Association of veterinary inspectors) was totally inadequate for the purpose, the first part of the meeting having occupied four and a half hours.

Something, however, was done in this connection, and the resolution finally proposed and adopted was that a National Association of Veterinary Inspectors be formed, that it be affiliated to the National Veterinary Association, and that the latter be asked to take steps to form a branch confined to veterinary inspectors. I am not quite clear as to the precise meaning of this; some speakers expressed preference for an Association quite distinct and apart from any of the existing societies, and I am bound to say this proposal is the one which commended itself to me. There is something to be said, however, on both sides, and I realise that the existing organisation of the N.V.A. could be usefully employed in bringing together to convenient centres, the whole of the inspectors of the country for the realisation of those objects which we all have in view. The question is will the N.V.A. take up this work, and, most important of all, *will they take it up quickly?* I have no reason to suppose that they will refuse to do so, but I am not alone in desiring to be assured on the matter, as speedily as may be, for the reason that time presses.

With regard to the question of fees payable for work under the Order, we were able only to touch the fringe of this matter. Having sat in committee until after eight o'clock, most of us were obliged to leave, and it would serve no useful purpose for me to give the insufficiently considered opinions arrived at.

I know that many inspectors are now in negotiation with Local Authorities with regard to fees and the general arrangements by which the Order shall be carried into effect. This is the reason why I have considered it advisable to give an outline of our deliberations. If I may add a personal opinion of my own, it is this, that, pending the adoption of a suggested uniform scale of remuneration, any fees which are offered in the meantime should be accepted as a temporary arrangement, and conditionally to their being subject to revision when the scale generally payable comes to be known.—Your obedient servant,

TAYLOR SPENCER.

Kettering, April 8,

Dear Sir,

Three weeks ago there was a letter in *The Veterinary Record* by Mr. Green of Dudley. I have now resigned my membership of the Midland because there is so much of the thing Mr. Green complains of going on.—Yours faithfully,

JAS. BLAKEWAY.

The Homestead, Malvern Wells.

April 5,

# THE VETERINARY RECORD

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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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**Edwin Faulkner, M.R.C.V.S.**

Death has been busy in our ranks lately, and his latest victim was Mr. Faulkner, of Manchester, who died on April 11th after six months of indifferent health. Edwin Faulkner graduated in Edinburgh in 1874 from the New Veterinary College, where he was one of Professor Williams' favourite students—and the Professor had no favourites unless they were workers, and possessed of more than usual intelligence. Mr. Faulkner joined the late Mr. Thos. Greaves as assistant in his extensive practice, then became partner, and ultimately succeeded to the practice, which he enlarged. He was an exceedingly keen man of business as well as an enlightened practitioner—characteristics which soon gained him a very prominent position in Lancashire. For many years he stuck pretty closely to business. When he devoted more time to professional subjects—political and scientific—it was soon evident that a man of first class attainments was among us. On clinical subjects he possessed a wide experience based upon careful observation; on political subjects he was clear-headed, free from prejudice and guided by sound common sense. At the meetings of the Lancashire V.M.S. he never joined in a discussion without leaving the subject clearer, and no man, when he rose to speak at the National Veterinary Association, gained closer attention than our deceased friend. Naturally, in these spheres he soon rose to the highest position, and was President of the Lancashire and "National" Societies.

For four years Faulkner was a member of Council of the Royal College of Veterinary Surgeons, and became a Vice-president in 1896. Probably the first signs of failing health decided him to resign his position on the Council, but whatever the cause he did so, and thus lost his chance of reaching the highest professional position, for it is certain that had he remained a member of Council, he would soon have been President of the R.C.V.S.

The funeral took place on Monday last at Bowdon Parish Church, where many of his old friends met. We must express our sincere sympathy with his relatives and friends in their loss, and especially with his sister, who has for years kept house for him at Old Trafford.

## THE COUNCIL MEETING.

The Council meeting last week was a quiet one. In one point it is rather remarkable; for, contrary to the usual custom, the report contains no account of the College finances for the quarter. Such an account is not necessary just now—the annual balance sheet will soon be before us, and we all know too well that it will be a depressing one.

Much discussion took place over the Milk and Dairies Bills for England and Scotland respectively—a subject to which we may refer again later. The present position is that the Council have suggested some alterations in both Bills, and appointed a small but strong sub-committee to take all necessary action. The whole discussion is worth reading; and the incidental references that were made to the Tuberculosis Order—a subject which concerns us much more nearly than these Bills—are especially so.

For some time past a special sub-committee has been working upon the revision of the examination syllabuses; the work has just been completed; and the revised draft is to be circulated to the Councilmen before the July meeting, at which they will be considered. Evidently the sub-committee have taken much pains with the revision, and the Council are to have full time to consider the committee's proposals—all of which suggests that some extensive changes may be under consideration. Another committee is busy revising the Fellowship regulations and drafting provisions for a new diploma in Veterinary State Medicine, but its work is not yet completed.

The Council are quickly acting upon the report of the Departmental Committee on the Public Veterinary Services with regard to exemption from our first professional examination in special cases, such as that of a Science graduate. A committee has been instructed to draw up the conditions of such exemptions, and good results from this work may be anticipated.

The Honorary Associates Committee have suggested that the International Veterinary Congress should be made the occasion for creating "a number" of Honorary Associates. Apparently the Council have accepted this very commendable proposal. Of late years far too few distinguished foreign Veterinarians have received the only honour our Council can give them; and the present is a good opportunity to make amends.

Lastly, we note that the Council have once more declined to face the expense of an annual dinner. We know too well that there is much to be said for the decision; but none the less we regret it.

## JOHNE'S DISEASE IN A HORSE.

Prof. Liénaux, of the Belgian Veterinary School, having encountered a case of Johne's disease in a horse, records it for the benefit of practitioners who may be confronted with chronic diarrhoea in that animal. Chronic diarrhoea is much more rare in horses than in cattle. When occurring in horses it is connected with different diseases, and especially





with intestinal sclerostomiasis and with chronic nephritis. Liénaux has repeatedly seen cases of equine chronic nephritis in which chronic diarrhoea was the only symptom. In future, it will be necessary to inquire into the possibility of Johne's disease when chronic diarrhoea is present. The early discovery of Johne's disease would at least authorise the practitioner to advise slaughter before the carcass had lost all value.

The subject of Liénaux's observation was a farm horse, three years old. The animal had been suffering from diarrhoea for six weeks, was already very emaciated, and was feverish. The urine was not albuminous. The microscopical examination of the faeces was negative so far as worms and their ova were concerned, but revealed a great number of long or short bacilli, isolated or in small groups, and taking Ziehl's stain. The injection of tuberculin caused a rise of temperature from 103.1° F. to 103.8° F.

The horse was slaughtered, and post-mortem, two lymphatic glands—one in the great mesentery, and one in the meso-colon—were found absolutely caseous, though little enlarged. These were the only lesions of tuberculosis present. But extensive and serious lesions of the intestine existed, which were especially well marked upon the caecum and double colon. The walls of these two viscera were thicker and more consistent than normal, and the small intestine was altered in the same direction, though to a much less degree. The lymphatic glands disposed along the caecal and colic arteries were slightly tumefied and turgescient, and along the same vessels large distended lymphatic trunks, filled with yellowish lymph, could be distinguished.

The mucous membranes of the caecum and large colon were very thick. Their free surface was irregular, and was strewn with projections reaching up to 2 millimetres (1-12th inch) in height, and of very variable surface dimensions. Sometimes these projections took the form of very well defined nodules of hempseed size, in other cases—and these were more frequent—they took the form of more or less extensive raised plates, between which the mucous membrane appeared smooth and comparatively normal in aspect. Nodules and plates were in close proximity to each other, so that the depressed areas between them generally formed narrow folds. The surfaces of these nodules and plates showed losses of substance, which were punctiform upon the nodules but larger upon the plates, where it was impossible not to recognise their ulcerous nature. These ulcers were always shallow, and were nearly always covered with vegetable *débris* which adhered to them rather closely.

Microscopical examination of scrapings from the lymphatic glands involved, stained by Ziehl's method, showed bacilli isolated or in clusters, as they are found in the mesenteric glands of cattle affected with Johne's disease.

It results from this observation that the horse, like the ox, is susceptible to Johne's disease. In future it will be necessary to avoid bringing horses into contact with cattle suffering from Johne's disease, and *vice versa*.

Liénaux remarks that, from the anatomo-pathological point of view, it is interesting to note the abundant ulceration in this horse. Ulceration is rare in Johne's disease in cattle.—(*Annales de Méd. Vét.*).

#### PUSTULAR DERMITIS AND PYEMIA IN THE HORSE, CAUSED BY THE BACILLUS TETRAGENUS.

Mongrell, a fourth year student at the Brussels Veterinary School, records the case of a horse which was brought to that institution under suspicion of farcy. The temperature and respirations were normal; the pulse was weak and diminished. The appetite was good, but the horse was in poor condition. He showed a unilateral nasal discharge, which was scanty and streaked with blood. In the regions of the back, withers, shoulders, and neck were numerous wounds varying in size, red at their edges, and discharging an abundant supply of oily yellowish white pus. With these were many buds varying from the size of a pea to that of a walnut, some firm, some fluctuating, some already discharging a thick pus which was white or yellow at different places. A certain number of these buds were arranged in linear series and directed towards the prescapular lymphatic gland, as if they were formed in the lymph vessels; but there were no visible lymphatic cords uniting them, and the prescapular gland itself appeared healthy. All these lesions had appeared within the preceding four days.

The general aspect of the wounds, which were distinctly red, the character of the pus, which, despite its oily appearance in some places, was opaque in general, together with the size of the buds and the absence of lymphatic cords, rendered farcy not very likely. Nevertheless, the mallein test and inoculations of guinea-pigs were both resorted to, and both gave negative results.

A microscopical examination of the pus was then made. This showed the absence of actinomycetes, of the parasite of epizootic lymphangitis, of the bacillus of Preisz, and of mycelium or spores which might belong to a sporotrichum. On the other hand, in addition to staphylococci it showed the presence of the *micrococcus tetragenus*.

The treatment adopted was opening up the buds which were still firm with the knife, thorough washing with soap and water to clean the skin, which was foul with pus, and then repeated irrigations with dilute hydrogen peroxide solution. New abscesses which formed in the following days were opened as they appeared. The wounds assumed a good aspect, and scabs formed upon their surfaces. The case seemed in a fair way towards recovery, when the animal lost appetite. He continued to lose condition, and died on the sixteenth day without having shown the least elevation of temperature.

Post-mortem, the following lesions were found. The pericardium contained a voluminous blood clot, due to the rupture of the posterior aorta, a few centimetres (1 centimetre = 4-10ths inch) from its origin. The rupture of the vascular wall was transverse, irregular, and about three centimetres

(= 1.1-5th inch) long; its edges were infiltrated with blood and pus, but it was impossible to reconstruct the abscess which had caused the perforation.

The lungs contained ecchymoses and numerous metastatic abscesses of diverse dimensions and at various stages of their development. Some of these abscesses in particular were surrounded by a brown or black areola, recalling that of glanders nodules at their second stage. The centres, however, were distinctly purulent, not grey and firm like glanders nodules. Moreover, the bronchial and mediastinal lymphatic glands were free from lesions.

The kidneys also contained numerous abscesses situated in their cortical and medullary layers. Bacteriological examination of the pus from these renal abscesses showed the *micrococcus tetragenus* in the pure condition. Its identity was verified by cultures upon various media and by inoculations of white mice.—(*Annales de Méd. Vét.*)

#### ACHROMIC ALOPECIA IN THE HORSE.

G. Nicolau describes this condition, of which he has seen and treated four cases, and which has not yet, to his knowledge, been reported in veterinary literature. The disease is characterised by two main symptoms, viz. the falling out of the hairs in concentric zones, and the loss of the normal colouration of the skin.

The depilated zones appear as smooth well-defined spots or patches, round or oval in shape, variable in size and number, and situated especially upon prominent regions of the body, such as the zygomatic crest and the external angle of the ilium. The animal shows no pruritis. Depilation is rapid, the hair of the region falling out in tufts within a few days; afterwards, the process may slowly extend excentrically, or upon a peripheral portion of the patch. Many of the hairs which fall out have their roots atrophied, and, upon the periphery of the patch, atrophied, dull, broken hairs are found, which fall out with the greatest facility if touched by the fingers.

At the periphery of these achromic zones, the author has seen a zone of hyperchromism or super-pigmentation, giving the impression that the pigment had been driven back outside the achromic surface.

The evolution of the disease is that the hairs fall out for a few days (the decolouration of the skin preceding the fall of the hairs), and then follows a period of stagnation, which lasts for about a week. Then the skin, which is as white as paper or ivory, regains its pigment, which makes its appearance as small black islands irregularly distributed in the white patch. These pigmented islands extend and become confluent. Then the hairs commence to appear, and gradually to grow. Often the point where the disease commenced is found cured and covered with hairs, while other surrounding parts are continuing the process of depilation and decolouration of the epidermis.

These portions, in their turn, regain their normal colour and hair in accordance with the time at which they appeared. Usually, when re-pigmenta-

tion is complete, the colour of the area of skin which has been involved is darker than it was before the onset of the disease—its pigmentation is more intense.

The etiology of the disease is unknown. The author thinks that repeated traumatism certainly have something to do with inducing it, for he has chiefly observed it on parts subject to friction—the external angle of the ilium, the zygomatic crest, the transverse process of the atlas, etc. Judging from the manner in which it occurs, it does not seem to be contagious. The author's cases have been sporadic ones.

The diagnosis is most easy. Once seen, the author says, the condition will not be forgotten.

The author's treatment consists in alternately washing with green soap and either applying a mercurial inunction or painting with tincture of iodine. The chemical irritation which arises powerfully stimulates the growth of hair.

The author gives a detailed report of his four cases. The first was affected over a large portion of the left flank, including the external angle of the ilium, where the process had first commenced and where new hair first began to grow; the second was affected on the nape of the neck, and round the eyelids, lips, and nostrils; the third, in the left supra-orbital region, and the fourth on the nape of the neck, extending over the left parotid region.

Two of the horses were ten years old, and the others six and seven years respectively. All the cases followed the same course as above described, but a perusal of their details seems to indicate—though the author does not suggest this—that the disease runs a course tending naturally to recovery, and that the treatment applied had little effect upon its evolution. In one case some portions of the lesion were intentionally left without treatment, and recovered in the same time as the adjacent treated parts; while in another the lesion extended its area for a week despite all treatment, and it was only at the end of that time that re-pigmentation of the skin commenced at the initial starting point of the disease, and the peripheral depilation ceased.—(*Archiva Veterinara.*)

#### A SYMPTOM IN EQUINE INFLUENZA.

Barrier (*Bulletin de la Soc. Cent. de Méd. Vét.*) calls attention to an infallible clinical symptom of equine influenza, which appears immediately at the outset of the disease, and should induce the practitioner to take animal's temperature from the very first.

This symptom is the peculiar carriage of the tail in the stable. The horse affected with influenza instead of letting his tail hang down loosely between the hind limbs, holds it bent rather upwards, leaving the anus free. This is a simple reflex action, and indicates an irritation of the stomach and intestines, which is never absent in influenza.

By this symptom, the sick animals can be distinguished from the healthy ones while the practitioner is simply walking through the stable.—(*Berliner Tierärztliche Wochenschrift.*)

W. R. C.



MEETING OF VETERINARY INSPECTORS.  
THE TUBERCULOSIS ORDER OF 1913 OF THE  
BOARD OF AGRICULTURE.

A meeting of Veterinary Inspectors called to discuss the effect on the profession of the new Tuberculosis Order of the Board of Agriculture was held in the Throne Room of the Holborn Restaurant on Monday afternoon, the 7th April, 1913. Mr. J. Abson, Sheffield, occupied the Chair, and the following signed the attendance book:

Sir Stewart Stockman, London; Messrs. Trevor Spencer, Kettering; Wm. Shipley, Great Yarmouth; F. W. Garnett, Windermere; J. C. Coleman, Swindon; J. S. Lloyd, Sheffield; J. G. Reynard, Perth; John Cameron, Berwick-on-Tweed; A. W. Reid, Bromley, Kent; G. A. Banham, Cambridge; D. Hamilton Wood, London County Council; J. D. Whitehead, Salford, Lancs.; H. Holroyd, Blackburn; A. D. Minor, Manchester; Wm. Roach, Exeter; J. Mackinder, Peterborough; W. J. Powell, Newport Pagnell; J. R. Dykes, Wellingborough; Chas. Hartley, Lincoln; H. C. Reeks, Spalding; Herbert H. Nichols, Oundle; J. H. Poles, Whittlesea; C. Wood Page, Banbury; W. D. Wallis, Barnet; J. McI. McCall, Board of Agriculture; A. Glover, South Godstone, Surrey; A. C. Wild, Woking, Surrey; J. B. Tutt, Winchester; W. K. Townson, Market Deeping, Lincs; R. L. Phillips, Loughborough; J. W. Whitcross, Kingston-on-Thames; Walter W. Golding, Hertford; E. J. Mallett, Henley-on-Thames; J. Sumner, Bootle; Wm. J. Cade, Bristol; E. W. Baker, Wimborne; S. G. Masterman, Huntingdon; S. H. Slocock, Hounslow; W. R. Davis, Enfield; W. J. Fletcher, Wrexham, N. Wales; A. Mackenzie, Market Drayton, Salop; C. J. Byner, Birmingham; F. W. Chamberlain, Wimbledon; Wm. Dale, Coventry; G. H. Harris, Sawbridgeworth; Alfred Over, Rugby; F. Morton Wallis, Haleside, Essex; J. S. Drabble, Halifax; H. G. Lepper, Aylesbury; C. F. Parsons, Cheltenham; A. B. Forsyth, Cannock, Staffs; J. G. Parr, Leicester; W. W. Goldsmith, Hitchin; B. Franklin, Stevenage; Wm. T. D. Broad, Marlborough; J. Malcolm, Birmingham; W. Woods, Wigan; H. J. Dawes, West Bromwich; G. H. Elder, Taunton; P. G. Bond, Plymouth; R. S. Pethick, Tiverton; W. B. Nelder, Exeter; J. Hammond, Bale, Norfolk; G. H. Gibbins, Tavistock; W. Beal, Thrapston; W. L. Gascoyne, Lutterworth; T. Ludlow, Mansfield; F. L. Somerset, Chesterfield; H. H. Roberts, Leatherhead; T. Skelton, Epsom; A. C. Duncan, Cirencester; H. H. Hide, Edmonton; J. H. Shepherd, Guildford; J. S. S. Woodrow, Swinefleet, Yorks; R. A. Philp, Brentwood; P. S. Howard, Wanstead; T. D. Hughes, Woodstock; G. H. Williams, Chippenham; G. Parr, Salisbury; C. F. Halford, Haslemere; J. E. Wallis, Hailsham; J. W. Pritchard, Arundel; Jas. Forbes, Truro; G. F. Vincent, Sutton, Surrey; J. H. Ripley, Hurst Green, Sussex; W. T. Brookes, Warwick; J. Buscombe, Stroud; J. T. Abell, Derby; T. H. L. Duckworth, Aashbourne, Derby; J. C. De Ville, Uttroter; C. J. Humphrey, London, L.C.C.; R. Bryden, London, L.C.C.; T. D. Young, London; J. B. Young, Braintree, Essex; W. Hunting, London; G. Howe, Buxton; D. G. Davies, Swansea; D. Pugh, Sevenoaks; A. N. Foster, Chilton, Derbyshire; Wm. Turtill, Wickham Market; T. E. Barham, Paston, N. Walsham; Arthur Payne, Weybridge; A. R. Routledge, Louth, Lincs.; W. E. Ison, Atherstone; G. H. Wooldridge, R.V.C., London; S. B. Vine, Settle, Yorks; R. MacGregor, Market Harborough; K. H. Soutar, W. B. Carless, Worcester; W. Trigger, Newcastle, Staffs; Michael Sadler, Burton-on-Trent; H. Taylor, Haywards Heath; Percy J. Simpson, Maidenhead; G. P. Male, Reading; R. J. Varney, Oxford; Percy Gregory, Tonbridge; J. J. Scott, Colchester; J. B. Wyer, E. Grinstead; W. W. Grasby, Daventry; F. J. Taylor, London; H. Westgate, Peterborough; Arnold Porritt, Preston; G. Wartinaby, Burton-on-Trent; E. Percival Owen, Thame; A. D. Lalor, Sleaford, Lincs.; W. C. Prudames, Leighton Buzzard; E. A. Prudames, Hemel Hempstead; F. T.

Trewin, Watford; J. Buckingham, Harleston, Norfolk; R. W. Hall, Barry, S. Wales; James East, Aylesbury; A. Ridlington, Ramsey, Huntingdon; James McCall, Glasgow; Wm. Awdie, Stockton-on-Tees; T. T. Jack, Sunderland; E. H. Pratt, Northallerton; H. A. G. K. Brittain, Guisborough, Yorks; W. D. Halfhead, Ongar, Essex; C. Crowhurst, Maidstone; P. Deighton, Selby, Yorks; A. W. Findlay, Kineton, Warwick; C. Pitts, Bradford; Philip Vincent, Grays, Essex; Arthur W. Wylie, Grays, Essex; J. A. Dixon, Leeds; W. Edmonson, Harrogate; Geo. Green, Rotherham; D. Reid Chalmers, Tunbridge Wells; G. Elphick, Newcastle-on-Tyne; E. W. Morris, Uckfield, E. Sussex; Wm. Caudwell, Chertsey, Surrey; E. Lyne Dixon, Margate; James Crowhurst, Canterbury; T. C. Toope, Dover; T. Mayor Parker, Whitchurch, Salop; T. Eaton-Jones, Liverpool; F. L. Gooch, Stamford, Lincs.; T. Slipper, Sutton Coldfield, Warwick; J. A. Gold, Redditch, Worcs.; J. W. Brittlebank, Manchester; G. H. Locke, Manchester; J. Clarkson, Garforth, near Leeds; J. McKinnis, Huddersfield; John Dunstan, Liskeard, Cornwall; Harry Peele, Durham; Hugh Begg, Hamilton, Lanark; W. G. Schofield, Pontefract, Yorks; A. Renfrew, Worcs.; C. A. Squair, Surrey; T. Chambers, Dudley, Staffs; C. E. King, Abingdon; W. J. Arkcoll, London; E. R. Harding, Salisbury; R. C. Tennant, Windsor; E. Peasey, London, and J. Pollard, Halifax.

Mr. TREVOR SPENCER (Kettering) having read the notice convening the meeting, stated that the following gentlemen had written apologising for non-attendance:

Messrs. W. T. Oliver, Tamworth; D. Forwell, Worcester; Prof. Penberthy, Newnham; L. W. Heelis, Solihull; W. Waters, Blofield, Norwich; H. Bibbey, Swanlow, Winsford, Cheshire; R. C. Trigger, Newcastle, Staffs; Gordon McIntyre, Loddon, Norfolk; Prof. Gofton, Edin.; W. Jackson Young, Barrow-in-Furness; F. B. O. Taylor, Weston Longeville; T. E. Auger, Wymondham, Norfolk; W. Barling, Newnham-on-Severn; J. H. Taylor, Darlington; G. A. Harle, Coldstream; J. H. Carter, Burnley; W. Ascott, Bideford; James Storrar & Son, Chester; A. Johns, Kimbolton; Frank Booth, Colwyn Bay; W. A. Taylor, Manchester; W. Smithers, Dorking; J. Marshall, Knutsford; S. Villar, Amersham; J. Alex. Todd, Worthing; W. C. Hazelton, Buckingham; J. McKertie, Hungerford; J. Cecil Munby, Lewes; W. T. Edwards, Neath; R. Murray, Rugeley; C. Blackhurst, Broughton, Preston; H. H. Truman, March; E. G. Johnson, Beighton; J. J. Crowhurst, Stratford-on-Avon, and others.

The CHAIRMAN: We have met here to-day to consider this—one of the most important and momentous Orders so far as we as a profession are concerned—that we have ever been asked to undertake. It is no exaggeration to say the responsibility is enormous, both to ourselves and to the community, and it is absolutely imperative that we should adopt as far as possible some uniform and well considered policy whereby we may be enabled to discharge these onerous duties in a scientific, practical, and impartial manner. There can be no shadow of doubt that a full discussion of this Order as affecting ourselves will prove most useful and helpful to every one of us. The profession has never before been asked to undertake so grave a responsibility as the eradication from our herds tuberculous cattle that are a danger to human life. The proposition is stupendous, indeed one can hardly realise its full magnitude.

It will behove us to make haste slowly at first—time will be required to master details and get the Order working smoothly. There will be many pitfalls to be avoided, and in perhaps no other Order has there been indicated a greater necessity for the display of tact and discretion than in the Tuberculosis Order of 1913. Gentlemen, we have to prove—we must prove—that we are in every way worthy of the confidence about to be placed in us.

You will all have read and re-read the Order. I do not think we can find fault with the wording of it. It



is clear and concise, and easily understandable—as Orders go, but where any doubt exists as to the meaning of any word or sentence, Sir Stewart Stockman, who has very kindly consented to be present, will, I am sure, be only too pleased to enlighten us.

Sir STEWART STOCKMAN then addressed the meeting and explained the Order. At the conclusion of his address a very large number of questions were asked and answered by Sir Stewart Stockman.

The report of the proceedings of this meeting will be published after the proofs have been corrected by the speakers.

Mr. W. WOODS, in asking the meeting to accord a very hearty vote of thanks to Sir Stewart Stockman for so kindly explaining the Order and answering the questions that had been put to him, said that in Sir Stewart the profession possessed one of its greatest friends, one who held a considerable amount of power which he was anxious to use for the interests of the profession. (Hear, hear). In the case of some of the old practitioners the word "centrifugalising" and examining for tubercle bacilli seemed to be something extraordinarily hard. If one talked of centrifugalising milk it seemed a very hard thing, but when a farmer separated his milk it was perfectly simple. They were both the same thing. He thought it would be a very good thing if the Board of Agriculture would issue a small pamphlet for the instruction of veterinary inspectors stating how they could centrifugalise milk; how many smears of milk they would advise them to take; which particular part of the centrifugalised milk was most likely to contain the bacilli, and particulars of the Ziehl-Neelsen stain as a test. The pamphlet need not be very long, but it would be of very great assistance to some of the members who had not been in a position to take post-graduate courses.

Mr. W. SHIPLEY, in seconding the motion, said he was sure everyone was delighted at the representative meeting of Inspectors that had taken place that afternoon, and Sir Stewart would quite recognise how much they appreciated his help in the endeavours he had made. Personally he thought it was a very great pity that all the Inspectors did not receive a copy of the circular letters of the Board of Agriculture. Reading between the lines it seemed that veterinary inspectors had a fairly difficult task before them, and that they must go cautiously and feel their way as they went along. In his own district he had had meetings with the Executive Committee, and the Local Committee, but the only advice he could give them on the matter was wait and see—to go slowly and see how the thing worked. Some people seemed to be much afraid that the Order would be a very expensive and troublesome matter, but he felt certain that all Inspectors would do their utmost to carry out the Order in such a way that it would be a credit to the profession and to the Board which brought in such an important Order. (Cheers.)

The CHAIRMAN, in putting the motion, said it was something of a new departure for a Government official to come amongst outsiders and tell them how an Order should be carried out; in the whole of his career he never remembered such a thing happening before, and he was sure all would be agreed that the profession owed a deep debt of gratitude to Sir Stewart Stockman for the work he had done.

The resolution was then put and carried with acclamation.

Sir STEWART STOCKMAN, in acknowledging the vote of thanks, said he thought there would be no difficulty in carrying out the suggestion Mr. Woods had made. Mr. Woods very truly said that the older veterinary inspectors had got it into their heads that a centrifugal machine and a microscopical examination were a sort of magic. As a matter of fact in many cases—he did not say in all—it was one of the simplest things in the

world to carry out. The technique, at least, was the sort of thing that laboratory assistants of eighteen who had had bottle washing instruction could do in his own laboratory. They could prepare a smear; they could stain and dehydrate it, and have it ready for examination. A water centrifuge could be obtained for about £2, which could be connected with a water supply of, say, not less than 30lb. to the square inch to make it effective, although it would be better if it was 40 lbs. It was only necessary to turn on the tap to start the machine. A man could go away and attend to a case and come back in half-an-hour, when everything would be ready in the centrifuge tables. It was still simpler in the case of tubercle than in anthrax, because a more or less diagnostic stain was available, which did not exist in anthrax to the same degree. In examining a slide for tubercle, if it had been taken from a suspicious udder, and acid-fast bacilli were found in it, the veterinary inspector might be pretty sure that he had to deal with tubercle bacilli; at any rate, personally, he would be willing to take the risks of being wrong in diagnosing tubercle in such circumstances. He saw no reason why older men who were occupying the positions of veterinary inspectors should not do the work. The Order was one of the biggest things that had ever been put into the hands of the veterinary profession, and he was exceedingly anxious to see the profession make a job of it. He did not see why men who were a bit nervous about their ability to make the examinations should not go for a fortnight to the various colleges for special instruction. He was in Germany about three months ago looking at some of the laboratories, and there found that a general Order had been issued throughout the whole of Prussia, that every veterinary inspector who had been in practice for a certain time, was to go to a veterinary college in his district for a fortnight to be brought up-to-date in regard to the methods of diagnosis, etc., and the Colleges were ordered to provide special courses to suit the requirements of those men. So far as the Tuberculosis Order was concerned, he thought anyone could learn the technique of the examination in a week or so by going to a laboratory; there was very little in it. He did not say that at the end of that time the inspector would be a great authority, but after he had examined a hundred specimens he would be a great authority. He was exceedingly obliged to those present for the way in which they had listened to his remarks, and he was gratified at the large number of veterinary surgeons who had attended. It showed the great interest that was being taken in the Order, and gave him the hope that the Board would receive support in the endeavour to carry it out. (Cheers.)

(Sir Stewart Stockman then left the meeting.)

Mr. F. W. GARNETT (Windermere) moved "That in the opinion of this meeting it is essential that veterinary inspectors must insist on carrying out themselves the instructions which have been issued by the Board of Agriculture to Local Authorities in reference to Section 4 of the Order." In doing so, he said that the Order and the instructions which the Board of Agriculture had issued threw the onus on the veterinary profession of making the diagnosis of tubercle bacilli in milk, etc. It was a question whether the profession were going to benefit by the Order or not, and he took it that every veterinary inspector would have in the near future to make a definite diagnosis within a few days of whether tubercle bacilli were or were not present in milk. On the other hand, if they did not do it themselves they threw the responsibility of making a definite diagnosis on to medical practitioners. The veterinary profession had, through the Order, taken upon themselves a very responsible position. Each veterinary inspector would require at least a centrifuge, a water one or a hand one; certain stains, a 1-12th inch oil immersion lens, and a



microscope having a mechanical stage. That was the minimum which each veterinary inspector would require if he intended to carry out himself the objects of the Order. One of the essential points of the present meeting was to try and arrange a careful start in the working of the Order. It was necessary to make as few mistakes as possible in the initial stages, but, like everything else that was new, veterinary inspectors were bound in the beginning to be liable to make mistakes. It was desirable, however, to make as few as possible because others were watching the way in which they carried out the Order who were ready to pounce down upon them if they made serious mistakes and endeavour to take the work out of their hands. The object of the resolution was to bind those present to do all in their power to keep the working of the Order in the hands of veterinary inspectors, and following upon it a resolution would be moved for the formation of an Association of Veterinary Inspectors, the members of which would form practically a brotherhood who would help one another in all practical ways if any difficulty arose, and aid one another to form a correct diagnosis. The veterinary profession desired to keep the kudos of the Order as much as they possibly could to themselves.

Mr. H. J. DAWES seconded the resolution, which was carried unanimously.

The CHAIRMAN said the next item on the agenda was the consideration of the question of the formation of a Veterinary Inspectors' Association. He could not help thinking that the formation of such an Association would be of great benefit, because the veterinary inspectors were placed in a very onerous and responsible position by the Order, and if an Association was formed they would be able to help each other and do much good.

Mr. J. S. LLOYD (Sheffield) mentioned that a few years ago an Association of Veterinary Officers of Health was formed which at the present time consisted of 45 Scottish members, 14 or 15 English members, and 5 members in Ireland. Personally he thought it was not advisable to form too many Associations, and he threw out the suggestion that all the members of the profession who acted as veterinary inspectors should join the English section of the Association of Veterinary Officers of Health.

Mr. T. C. TOOPE moved: "That this assembly become an integral part of the National Veterinary Association by means of some such scheme as that suggested by the Secretary of the Southern Branch." In doing so he said he thought there was no necessity for the formation of a National Association of Veterinary Inspectors, and he had drawn up a scheme which he intended to present on the following Wednesday to the Southern Branch of the National, whereby all those present could be taken in and made members of the National without causing any possible split in the ranks of the profession.

Mr. Toope read the scheme that had been prepared.

Mr. C. CROWHURST seconded the resolution, saying that he thought it was very desirable that the National should be made the most important Association throughout the kingdom, so that the profession could become one united body.

Mr. J. DUNSTAN thought it was a great pity at the present time to form a new Society. For some years past great endeavours had been made to combine all the veterinary interests into one, and success had just been achieved in forming a National Association which represented the profession throughout the whole country. It seemed to him, therefore, unfortunate that another Society should be formed with opposing interests that would certainly clash with the National. It seemed to him far more reasonable to make a Veterinary Inspectors' Section of the National. The profession was a very small one, and if only a section of the profession spoke, such as the veterinary inspectors, it would not carry as

much weight as the National representing the whole profession of the British Islands. He strongly supported the suggestion that the National should be left to carry on the work.

Mr. J. A. DIXON said it was the universal opinion of those present at a meeting of Veterinary Inspectors held at Canterbury that it would be advisable instead of forming a Society of Veterinary Inspectors, to affiliate with the National. He therefore had great pleasure in supporting Mr. Toope's resolution.

Mr. H. J. DAWES also supported the resolution, saying that he thought any attempt to form another Association would be a mistake.

Mr. W. HUNTING, in opposing Mr. Toope's resolution, said that in the first place it would take about a couple of years to form a sort of circle within the bigger circle. It had taken three or four years to get the different societies amalgamated into one, and to add another arrangement by which the veterinary inspectors were to have a special place in the National did not seem to him to be on the right lines. The words "division" and "union" might be wrongly used. He did not see why any division or want of union would take place if a separate society was formed of veterinary inspectors. It was desirable to have one proper tool for each separate operation. A pocket knife with fourteen blades in it was a useless article; it took up a lot of room and was not as good for any purpose as any one single blade in a proper tool. Matters of general interest to the profession could be dealt with by the National, but veterinary inspectors had a line of their own which they understood far better than the general members of the profession did.

Mr. G. E. KING moved as an amendment: "That the present time is opportune for the formation of a National Association of Veterinary Inspectors, having for its object the safeguarding of their interests and the consideration and discussion of all matters connected with the duty of the inspection of animals and animal diseases." In the first place he said he wished to disabuse Mr. Toope's mind that he moved the amendment through any antagonism to the National Society. The letter which he wrote to *The Record* two or three weeks ago suggested that a Society of Veterinary Inspectors might be formed upon the lines of the Veterinary Officers of Health, which might be affiliated with the National, divided if thought proper into divisions, and having a centre at which it would be convenient to meet.

Mr. TOOPE asked whether he understood correctly that Mr. King was willing that the Association should be affiliated with the National.

Mr. KING said he did not think there was any doubt that that would be so.

Mr. GARNETT said it was suggested that the Association should be absolutely separate, but united by affiliation with the National, just like the Southern or Western or Royal Counties Societies were.

Mr. KING, continuing, said there was a great need for veterinary inspectors to meet and discuss matters which arose in connection with their work. The veterinary inspector at the present time was simply a unit, and cohesion was badly required. In entering upon the campaign against tuberculosis it was necessary to act in unison and to adopt a uniform method of procedure. A very important aspect of the question in which their interests were enormously involved was that of fees. Quite new work had been thrust upon the profession, and it was necessary to discuss the matter of fees. If the veterinary inspector went as an individual to his County Council, he did not have the same consideration and respect shown to him as he would if he were a member of a society which had his interests at heart and which was ready to back him up in what he did. He suggested that the question of fees and duties should be fully discussed, and that after mature discussion a fair scale of

fees should be drawn up for their services, which should be submitted to a society representing the whole of the Veterinary Inspectors of the country. He thought a scale of fees submitted to each of their Councils in that way would carry infinitely greater weight than if the Inspectors went before their Councils separately. If an Association was formed an opportunity would be given to collect experience. Inspectors in one portion of the country had certain anomalies to deal with, and lived under totally different circumstances from those who had duties to perform in another part of the country, and valuable information would be gained if that experience was collected.

Mr. J. A. GOLD, in seconding the amendment, said he was Inspector for two different counties in which the fees were quite different. If a uniform scale was agreed upon throughout the country it would be a very strong argument in favour of its acceptance when placed before the different Executive Committees of the districts.

Mr. F. W. GARNETT, in supporting Mr. King's amendment, said that when he entered the room that afternoon he saw more veterinary surgeons congregated together in one place than he had ever seen in his life before. What had drawn that vast body of men together? Some identity of interests—something working towards a fellowship of those men who met together to discuss one single problem of the profession. That in itself indicated that the meeting had supplied a want with regard to veterinary inspectors, and the object of the amendment was to consolidate that feeling in such a way that they could act as one man and in the interests of the veterinary profession generally. There was nothing in such a new Society that was in any way inimical to the interests of the National Veterinary Association, and he took it it would follow, as day followed night, that such a new Association would become a part of the National Veterinary Association.

Mr. TOOPE said that if the word "will" was substituted for the word "may," so that it was compulsory that the new Society should be affiliated with the National, his views on the subject would be materially altered.

Mr. KING said he was quite willing for the word "will" to be substituted for "may."

Prof. WOOLDRIDGE pointed out one difficulty which he thought might occur if the amendment was passed in its present form. The National Veterinary Association was divided into four branches, the Northern, Southern, Scottish, and Irish, and the proposed new Association would include officers from all four parts of the United Kingdom. He thought some slight modification of the amendment was required, and suggested that Mr. King should add to it the words, "And constitute a branch of that Association," because it would be obviously impossible to constitute the new Association as a section of one of the branches of the National.

Mr. KING enquired whether the rules and regulations of the National would have to be altered.

Prof. WOOLDRIDGE said that addition to the rules and regulations would be required, and they could be brought forward afterwards.

Mr. HUGH BEGG asked what line of procedure the Chairman advised the members of the veterinary officers of health to take, because that Society really encompassed all the work of veterinary inspectors.

The CHAIRMAN said that personally he advised the members of that Society to join the new Association.

Mr. TOOPE then formally withdrew his motion from the meeting, and Mr. King's amendment, as follows, was put as the substantive resolution, and carried unanimously:—"That a National Association of Veterinary Inspectors be formed having for its object the safeguarding of their interests, the discussion of all matters connected with the duties of the inspection of animals and animal diseases, which shall be affiliated with the

National Association, and that steps be taken to constitute it a branch of that Association."

The meeting then proceeded to elect an Executive Committee, and on the motion of Mr. Garnett, seconded by Mr. Locke, the following gentlemen were unanimously elected: Messrs. John Malcolm, Dixon, Trevor Spencer, J. W. Brittlebank, George Elphick, George E. King, Dawes, Gold, G. P. Male, H. Peele, J. Abson, T. C. Toope, Hugh Begg, and J. Dunstan.

Owing to the fact that the meeting had lasted four hours and a half, and had dwindled considerably in numbers, and that the majority of the remainder desired to catch trains home, the consideration of the question of fees was referred to the Executive Committee, a meeting of which it was arranged should be held later in the evening.

On the motion of Mr. Dawes, seconded by Professor Wooldridge, a hearty vote of thanks was accorded to Mr. Abson for presiding, and to Mr. Trevor Spencer for the excellent work he had done in organising the meeting, and the proceedings terminated.

A meeting of the Executive Committee was subsequently held, and remained sitting until 8 p.m., when they adjourned until the 11th inst.

#### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting was held at the Grand Hotel, Manchester, on April 3rd, the President, G. H. Locke, Esq., Manchester, in the chair. The attendance included Messrs. Stent, Munro, junr., Holroyd, Spruell, Giblin, Wilson, Lawson, Whitehead, Garnett, Minor, Bridge, Wolstenholme, Taylor, Woods, Michaelis, Turner, Mattinson, and Brittlebank.

Visitors: Messrs. Richardson, Richmond, and Whipp. Apologies for absence were received from Messrs. Faulkner, Hughes, McKinna, and Abson.

The minutes of the last meeting were taken as read on the proposal of Mr. Taylor, seconded by Mr. Giblin.

*Nominations and Election.* Mr. RICHMOND, Bury, was nominated by Mr. Brittlebank, and Mr. RICHARDSON Rawtenstall, by Mr. Giblin.

Mr. K. J. S. DOWLAND, proposed by Mr. Noël Pillers, seconded by Mr. Brittlebank, was unanimously elected a member of the Association.

*Congress of the Royal Sanitary Institute.*—The Council recommended that no delegates be sent. This was approved on the proposal of Mr. Wolstenholme, seconded by Mr. Lawson.

*International Veterinary Congress.*—The following resolution of the Council in regard to this matter was submitted: "The Council recommended that a circular asking for subscriptions be sent in the name of Lancashire V.M.A. to all members of the profession residing within a radius of fifty miles from Manchester excluding Yorkshire."

The PRESIDENT said it was thought that by sending such a circular the aims and objects of the Society would be placed before members of the profession, and also that the County should do its share in contributing to the expenses of the Congress. The Lancashire V.M.A. had already promised £5 5s. per annum for three years.

Mr. GARNETT agreed with the resolution of the Council and hoped the meeting would confirm it. As they all knew, the International Veterinary Congress would be the biggest event their profession in Great Britain had had, and it would cost a great deal of money. Up to the present the profession had responded very well indeed: something like £2500 had been promised, but about £800 was still wanted; this should be readily forthcoming, as several of the large societies, such as the



Lancashire, Midland, Central, and Western Counties had not yet sent in their lists of subscribers.

He wished to point out that the payment of any amount promised could be spread over the two years before the Congress. He was glad to know that one or two members of the Lancashire V.M.A. had made a good start. He proposed that the recommendation of the Council be adopted, and thought that it might be advisable to state what amounts had already been promised.

Mr. STENT, in seconding, drew attention to the fact that some parts of Lancashire extend beyond a fifty miles radius of Manchester, and he considered that the resolution should include "the whole of Lancashire." This was agreed to.

*Rule VI. Entrance Fees.* The SECRETARY reminded the meeting that Mr. Noel Pillers, in proposing a nomination for membership, referred to the question of gentlemen who are members of other Associations being required to pay entrance fees if they wished to join the Lancashire V.M.A. He, Mr. Brittlebank, pointed out that this is fully provided for under Rule 6 which says, "Members of any other recognised Veterinary Medical Association desirous of becoming members of this Society shall be admitted on payment of only 10/- annual subscription, such gentlemen to be duly nominated and elected according to Rule 5." They would thus escape paying another fee. The Council propose that the rule should be altered by adding the words "not being in arrears to such Association." This would be added after the word "Association." He gave notice of motion that this rule be so altered at the next meeting.

*Fees and Allowances payable to Veterinary Inspectors.* The Council reported having carefully considered this matter and resolved—"That the Council approve the scale of fees contained in the schedule drawn up by the Council of the National Veterinary Association, with the exception of the minimum fee of £3 3s. for testing with tuberculin, and they suggest that it would be advisable that a minimum fee for a single animal should be fixed and a proportionately increasing fee for each animal in addition."

Mr. BURDRED said that at a meeting in the Potteries they decided that for the mallein test the minimum fee should be a guinea, one guinea each up to three tests and after that half-a-guinea.

Mr. BRITTLEBANK asked if they would get that for the tuberculin test, to which Mr. Burdred replied in the negative.

Mr. WOODS thought that so far as the mallein test is concerned it should be left. To his mind it is ridiculous to charge £3 3s. for testing a single animal, say, for glanders. In his own case he gets a pony, or one or two, sent to his premises and they stop there. The cost of keep and the trouble is very small, consequently the charge to the owners is small. If large numbers were to be tested then special arrangements would have to be made. Some time ago he tested 32 ponies for a certain colliery, and it took a full day's work; under this scale he would have got £18 18s. They might be able to get this in Staffordshire, but he thought it would not do in Lancashire. So far as the mallein test is concerned he did not think it possible to attempt any special scale, as it depended on the way the work was done. As to the tuberculin test, he thought a fee of £3 3s. was inviting a rebuff from the County Council. One guinea for one animal should be enough, and 5/- per head afterwards. This fee would be low for one case, but taking an average the total amount received would, he considered, be satisfactory. He proposed that that would be the suggestion from the Society.

The PRESIDENT stated that in the case of the Lancashire County Council they thought the veterinary surgeon must not have more than £2 12s. 6d. per day.

Mr. GARNETT seconded Mr. Woods' proposal and it was carried.

Mr. WHITEHEAD was of opinion that 10/6 for microscopical examinations, say, in the case of tuberculosis or anthrax, was too little.

Mr. WOLSTENHOLME thought that such examinations should not devolve upon veterinary surgeons, but should be done by a central authority.

Mr. GARNETT agreed that a proper microscopic examination could not be made for tuberculosis for 10/6. Personally he preferred that they should be paid by time.

The PRESIDENT said there was a great objection to being paid by time.

Mr. WHITEHEAD moved that the fee for microscopical examination of milk should be £1 1s. Mr. Mattinson seconded.

Mr. WOODS pointed out that for 15/-, providing a certain number of specimens were sent, they could get both a microscopical test and a test by inoculation at the Manchester University. Remembering this he did not think the present proposal would succeed.

Mr. BRITTLEBANK was inclined to agree with Mr. Woods, and pointed out that many institutions were making simple microscopic examinations for something like 5/- per sample. They all knew it was not of great value, and was not conclusive. It would be wiser, he thought, to leave the figure of 10/6 alone. The proposal was withdrawn.

Referring to the question of payment by time the Secretary said there was a very decisive expression of opinion against it by the special committee of the National Veterinary Association.

Mr. WOODS remarked that under this arrangement a person with a motor would be paid worse than he who walked. The Lancashire County Council accept that eight miles travel represents two hours, and on this scale Mr. Woods thought a time allowance would not be objectionable.

Mr. GARNETT was strongly in favour of a time allowance, and he worked in a district where long walks were unavoidable.

Mr. MATTINSON proposed in connection with "Travelling allowances—for cab-hire (when necessary) from a railway station, per mile" that the words "when necessary from a railway station" be deleted, and the words "or motor" inserted. The line would then read "For cab hire or motor per mile, one way, 1/6."

Mr. Garnett seconded and it was carried.

Mr. WOODS moved that the line "For travelling otherwise than by railway, per mile, one way, 1/-" be altered by the deletion of the words "by railway" and insertion of the words "as above." Mr. Lawson seconded. Carried.

Mr. BRITTLEBANK moved that the scale of fees now submitted and amended be approved and adopted. Mr. Garnett seconded and it was carried.

*New Instruments.* Mr. STENT stated that the tooth shears belonging to the Association are out of date and he proposed that the Secretary be authorised to purchase a new set. Mr. Giblin seconded. Carried.

#### VETERINARY EDUCATION.

By ALFRED HOLBURN, M.R.C.V.S., Congleton (formerly Chief Veterinary Inspector, City of Manchester).

Gentlemen,—The subject matter of my paper for discussion this evening is by compulsion, in that I was deliberately requested by your Secretary to read a paper on Veterinary Education, with special reference to meat inspectors at this meeting. Of course I dare not refuse—knowing the Secretary as I do, and also knowing something of the trouble which secretaries have in getting papers for our Societies: moreover, I felt I had

a greater duty to perform—and that was to support our President. Mr. Locke and I have been members of this Society for a similar number of years, but I have another reason for supporting him, namely, because of the great admiration I had for his father—through whose energies veterinary inspectors were first appointed by the Corporation of Manchester—and I wish to say that during my term of office as chief veterinary inspector of this city I had the greatest possible support and friendship extended to me by our President's dear father, the late Mr. Sam Locke.

Coming now to the subject of Veterinary Education, I must apologise for the incorrect title of my paper on the circular in as much as I wish to survey our education in a general way rather than speak on meat inspectors alone, and I will first admit that I know nothing about the real training or teaching of veterinary students, but I do know something about what is required of them, both as public officers and private practitioners, and I suppose it is generally admitted that the user of an article is the best judge of its worth.

In suggesting reform, whether political, municipal, or medical, "public opinion" seems to be the first essential and the "treasury" the second, therefore no apology is needed from the rank and file of our profession for expressing their opinions as to their present day requirements. The Royal College of Veterinary Surgeons is our representation, and possesses the sole legal control of our training and qualification for our diploma, consequently it rests with the profession to keep the Council up to the necessity of maintaining the standard of veterinary education commensurate with the requirements of the day.

Upwards of twenty years ago the profession was seriously engaged in investigating our curriculum, and found it necessary to make an extension from three years to four. This was then generally accepted, but let it be remembered every decade has its time, and still more so when doubled. We all know that during the last fifteen years enormous strides have been made in the advancement of veterinary science, so that the position to-day is altogether different from that considered even twenty years ago.

It is perfectly honest to say that at the time of our Royal Charter became law, the chief object of the profession was to teach men to become skilled in the principles and practice of veterinary surgery and medicine, necessary for the calling of a practitioner in the alleviation of the sufferings of animals.

What are the callings of the profession to-day? The General Practitioner; Army Medical Service; Indian Civil Veterinary Department; Colonial Veterinary Service; Local Veterinary Officers; Board of Agriculture and Fisheries Officers.

The Royal College of Veterinary Surgeons has therefore quite a different picture to analyse to-day than was the case in former years, and we must rise to the occasion. We must not go back, we cannot stand still, consequently "progress" must be our watchword.

It is evident that the profession itself is becoming concerned about the position of to-day, inasmuch as we have had several papers on this subject brought before our notice in recent years, viz., Mr. Henry Gray, the late Prof. Boyce, Principal O.C. Bradley, Major-General F. Smith, and Prof. Woodruff. These papers and the discussion attached to them show in no small way that a re-shuffling of cards in our veterinary curriculum is necessary, moreover, as Prof. Bradley says, it is sometimes necessary to raise a storm of dissent and criticism to obtain our needs.

Our question is: Are we satisfied that our teaching and training of to-day is entirely suitable to modern requirements? This question should stand out and be the first consideration of the R.C.V.S. There

is an old adage "Out of the fashion, out of the world," and this I am afraid applies to us. We have let the qualification of meat inspectors go to the Royal Sanitary Institute and the production of bacterial products and sera for the prevention of disease go to the medical profession.

The Royal College of Veterinary Surgeons is perhaps easy or perfunctory in its duties as to our modern requirements because of its sympathy with the colleges.

I feel sure we all agree that the calling of a veterinary surgeon to-day is accepted to be of such national and colonial importance that their training and qualifications ought to be of an up-to-date and popular standard. The Royal College must lead the way with a mandate from the profession, and if our present teaching institutions cannot accede to the request, another system must be organised. This is perfectly evident, inasmuch as we cannot disregard the steps taken by the Board of Agriculture and Fisheries appointing two separate Departmental Committees to consider our possibilities, viz., to enquire into "*Foot-and-Mouth Disease*," and secondly the "*Requirements of Public Veterinary Officers*." I look upon these Commissions—enquiring as they have done into our training and public usefulness—as one of the first recognitions of our services that we have ever received from the State. We cannot but welcome them as an outward and visible sign that our profession has at last forced its way to the front of public opinion, and has established its rights to be placed alongside other educational bodies that are accepted as assets to the commercial economy of our Empire, and this accomplishment is in no small measure due to the incessant energies of the chief veterinary officers of the Board of agriculture, Sir Stewart Stockman.

#### THE PRELIMINARY EXAMINATION.

In discussing our curriculum, the preliminary examination comes up for consideration, and I am unable to settle by myself what the composition of this examination should be. I should like to say that our present standard is not too high, indeed, inasmuch as we have now got University recognition, our preliminary test should be, in the interest of the students themselves, of such a standard as to be recognised by the Universities. I do not say that it should be precisely the same, but to be acknowledged by them, because I am not sure that it would not be a wise step to include in our preliminary examination to a certain extent some of the subjects taught in our first year's study at College, so to relieve the congestion of our curriculum—for instance, physics and botany.

#### OUR CURRICULUM.

The Diploma of Membership of the Royal College of Veterinary Surgeons should bear the Hall Mark of fitness for the work we purpose to undertake, and should be of such merit that a most searching enquiry into its possibilities would declare a satisfactory edifice of efficiency and action.

The primary object of our Colleges is to prepare students for the profession, or it may be more correct to say the examinations prescribed by the Royal College, hence the necessity of the Royal College extending or reconstructing its fabric from time to time as public opinion and science advances. Of course, you might say it is an easy thing for the Council to declare a certain standard, but how can the Colleges answer to the call? To this, I agree with Professor Share-Jones—our achievements must not suffer because of the financial position of our Colleges, the strong must stand and the weak go the wall. Again, let it be remembered that of two Departmental Committees, which have recently issued their reports in connection with veterinary training and animal diseases, each called for the



further extension of our education. This, to my mind, means that the Government must make grants for the more efficient teaching of veterinary science. There is evidently an idea in embryo of assisting us, or why appoint committees to make these suggestions? Grants are made to the Agricultural Colleges, and I think it would be difficult to find a professional man of greater value to the agricultural world than the veterinary surgeon.

The fact is we are altogether too modest in blowing our trumpet; we are far too silent, and considerably short of tact. Our work is not sufficiently popularised. Why, our colonies can have more State assistance than the Mother Country! And take an insignificant society like the Royal Society for the Prevention of Cruelty to Animals, there is hardly a rich person's "Will" but remembers them! How much more ought our College to be remembered if benefactors wish to relieve the suffering of animals. Nevertheless, we are slowly advancing in popularity, and if the Royal College will keep our education up to a popular standard, ways and means will be invented to secure the tuition.

As I have mentioned before, the objects of veterinary teaching to-day is rather different to that of some years ago, in that in addition to the general practitioner there are several branches of public veterinary service to be considered.

The practitioner stands first in consideration—this must be evident from the following list which Mr. Bullock, Secretary to the Royal College, has kindly given me:—Total number of Members on Register 3441

A.V.C. Active List	...	...	181
A.V.C. Retired	...	...	61
Indian C.V.D.	...	...	35
Board of Agriculture Inspectors	...	...	34
D.A.T.I. Ireland, Inspectors	...	...	48
General Practitioners retired (estimated)	...	...	100
Colonel and Foreign	...	...	393
		852	
		2589	
		3441	

According to the above figures there should be 2589 practitioners in this country, or 75 per cent. of the total number on the Register.

These figures show in striking manner the necessity of our Membership Diploma being the fundamental basis of our training, and should be of such a nature that, when required, a further superstructure of special knowledge could be easily added.

I do not want anything to be little our diploma, nor do I want the duties of a general practitioner made small. It does not need a moment's thought to realise that the practitioner requires a more extended knowledge of the diseases of animals than a public officer. In the pursuit of his daily calling the whole calendar of medicine and surgery has to be brought into thought and action. His skill in differential diagnosis is a marked feature, and also his aptitude to save life in emergency. There is no disease that he may not be called upon to diagnose. He has to maintain the usefulness of the animal population, and it would be difficult therefore to over estimate his worth to the country.

Our Colleges must, therefore, first think of the requirements of the general practitioner, and we ask ourselves if the proper training can be reached in our present four year's curriculum. I feel sure the time will come when another extension will have to be made, but at the present I think with Major-General Smith that a good deal could be achieved by reconsidering our calendar, and for this purpose an important committee of inquiry should be appointed, which should include

members of our Council, professors of schools, examiners, and representation from public veterinary officers. By such a combination I think the needs of the profession and its popularity would be set forth, and an improved line of teaching adopted. Veterinary science is now of great magnitude, and while fully admitting our short comings, our Colleges are to be congratulated on their attainments at such tremendous odds.

For my own part, I do not think that we can cancel or cut down any one subject set out in our curriculum, but I do think more might be done in both the first and second year. For instance, in the first year, stable management and the manipulation of domesticated animals might well be included, and in the second, hygiene and materia medica, in addition to what they now take. A portion of the final year's work could be undertaken in the third year, which would then provide considerably more time in the fourth year for clinical instruction, and a digest of previously taught subjects, especially anatomy, pathology, and meat inspection.

The Royal College has declared what subjects shall be taught for their examinations, and a minimum number of lectures to be given on these subjects. Personally, I should like this minimum to be extended—more particularly in pathology and the final year's subjects, and also to be further classified. It is inconceivable for a teacher to adequately deal with either medicine or surgery of all our patients in one hundred lectures. Again, I think we ought to have clearly set out what collateral subjects are embodied in medicine or surgery, and to what extent, i.e., what time must be devoted to the diseases of the ear, eye, skin, to obstetrics, etc. Further, I think it would be a great advantage to our training to have more duplication in the teaching of medicine and surgery, and for this purpose short courses might be arranged on subjects to be given by practitioners of easy access to the Colleges. Practitioners with extended experience in certain branches of veterinary practice—for instance, Obstetrics by a cattle practitioner, Diseases of the dog by a canine specialist, Diseases of the foot and shoeing by a city practitioner having a shoeing forge, Contagious diseases, their symptoms, notification, and suppression, by an experienced inspector under the Diseases of Animals Acts—preferably from the Board of Agriculture itself; and these may be multiplied. I feel sure these short courses on special subjects given by practitioners having special experience in them would be well received by the students, and be a considerable acquisition to the college staff, and of course they would only be regarded as supplementary to the systematic course given by the professor.

#### CLINICAL INSTRUCTION.

There is another very important reason why I think our Colleges should seek the assistance of the practitioner, and that is to provide more clinical training for the student. It is the general cry of the profession that our new graduates are very short of clinical experience, and we must admit that medical students receive a far greater training in clinical work than do our men. Granting that our colleges have done their best, the material available must be limited; for this reason I say the assistance of the city practitioner would be of great advantage to the college. Practitioners who attend large studs—whether corporation, public, or private companies—in addition to their own infirmaries, could offer a most valuable field for clinical instruction to the colleges, and I think they would be pleased to do it at a suitable remuneration.

You can overtax a teacher, and I am not in favour of a teacher being a "jack-of-all-trades and master of none." To make progress we must specialise, and you cannot do this by overburdening your teacher, hence I think the Royal College might insist on the schools providing a

separate lecturer for all our principal subjects. A separate chair ought to exist for medicine as applied to the ox, sheep, and pig, and the teacher ought to have had at least ten years country experience; this is a long felt want. We also require a separate chair for canine and feline diseases. Our comparative medicine, surgery, obstetrics, and epizootiology as it now stands is far below present day requirements.

It might be a question whether a term of instruction on the management, breeding, and diseases of the domesticated animals—other than the horse—could not be given at an approved Agricultural College. I should like to suggest a better relationship between the veterinary and the agricultural colleges. A veterinary student to have a term of three or four months at an agricultural college in the spring of the year would be a fine help to him.

Every disease has its picture which the student should endeavour to see. Clinical teaching abounds with images which find a mirror in every mind, and with sentiments to which every heart returns an echo. A man like Professor Macqueen ought to have at least £500 a year allowed for surgical experimentation, and Sir John M'Fadyen a much larger sum for research in the etiology of animal diseases and serum therapeutics.

The Government is simply murdering veterinary science of to-day, and also its asset to the agricultural world, by not assisting our schools and laying claim to the services of some of our best teachers for investigative work.

#### MEAT INSPECTION.

I wish now to refer to meat inspection. As it stands at present it is included in medicine by the Royal College. I will at once say meat inspection does not belong to medicine. What is meat inspection? It is a search for the evidence of the disease or unwholesomeness in the meat we eat. I wish to impress, therefore, that it belongs to the chair of morbid anatomy, and not to medicine. Two persons ought to be concerned in its teaching—a meat inspector to teach the principles and practice of meat inspection, and a pathologist to teach post-mortem detail and the significance of various morbid changes. It is essentially post-mortem work and belongs to the teacher of pathology. Some members of our profession have said that meat inspection should be removed from our curriculum and put to a post-graduate course. I am altogether against this. If our pathological training is good, it ought to be as easy for our graduates to spot a diseased organ as to diagnose a case of lameness. We ask for clinical instruction in medicine and surgery; we must have it in pathology. The lecture room and the laboratory will not teach you how to recognise disease in the organ or tissues by the naked eye; you must see the material. Then we ask, Where is this to come from? Chiefly from corporation abattoirs and from knacker-yards, both of which would be pleased to assist the colleges.

This want of the practical element in our pathological teaching is undoubtedly a weak link. We are not taught the art of conducting a post-mortem examination, we are not impressed sufficiently with the necessity and enthusiasm of observing detail, nor are we good at recognising morbid changes in the fluids, organs, and tissues of the body. There is nothing more impressive to a veterinary surgeon than the lessons of a post-mortem, and how much does it help us even in medicine and surgery? We can therefore rightly say that pathology is the handmaid of medicine, surgery, and meat inspection. When I was at Manchester I found it of the greatest possible assistance to keep in close association with Prof. Delépine, to whom I owe a debt of gratitude. Let our students be trained in the details of post-mortem work—what diseases and parasites affect the various organs and tissues of the differ-

ent animals; the recognition of death from natural causes and from inflammatory and septicæmic changes in a practical way. You have then got not only a meat inspector but what every graduate should know, consequently. The Royal College would be wisely advised to place meat inspection under the chair of pathology, with the assistance of a practical meat inspector as I have outlined. I feel sure a closer insight into post-mortem work would stimulate the mind into an enthusiasm for research, and this part of the pathological course should appear in the third and fourth years of our curriculum, with a separate table for examination.

#### EXAMINERS.

Another controversial point in our teaching is the question of examiners. Have we to continue our old system of external examiners, or allow a teacher to be an examiner in his own class? Personally, I am in favour of a teacher acting alongside an external examiner. Who knows more about the abilities of a man than his teacher? Besides, he would maintain a more methodical and tutorial standard, and especially do we require a teacher to examine in anatomy and pathology. We can safely rely on their ability to do so, especially with an external examiner beside them, and it would not only add to the efficiency of the examination, but be a saving to the Royal College as we wish for an extension of subjects for examination.

#### POST GRADUATE INSTRUCTION.

This subject does not strictly belong to our curriculum; yet, it is an extension of our education. Is this extension required? Personally, I admire the idea of post graduate tuition, and I think the time will come when most of our principal subjects can be revised through a post graduate course. At the present time these courses chiefly embrace laboratory technique—and staining, cultivation and isolation of micro-organisms and animal parasites. At the Manchester University, chemistry, veterinary hygiene, and a short practical course of meat and dairy inspection is included. These post graduate courses were commenced by the medical profession as a consequence of their diploma in public health.

Under our present curriculum, and considering that bacteriology has been included under the chair of pathology ever since the four years course came into force, you might ask, Is this post graduate tuition necessary? Personally, I should say it is not necessary for recent graduates, but there are a great many of us who have been qualified a few years now, therefore, we cannot but appreciate these courses as a means whereby we older practitioners and officials can keep abreast with the times. Of course these courses are of most use to men holding public appointments, and are valuable in studying the etiology of infectious diseases, methods of contagion, the production of bacteriological products and sera. By the application of bacteriological science and serum therapy, we hope shortly to be able to keep animals in tropical possessions, which hitherto has been regarded as impossible, both for the supply of food and transport purposes, in addition to the prevention of diseases at home. And this work belongs to us—not to the medical profession.

The number of public all-time veterinary officers is at present small, but we can safely say that they will increase. Sir Stewart Stockman is moving in no unmistakable manner, and through his energies the Board will force the hands of local authorities to appoint veterinary surgeons, both home and abroad. I am not in favour of debarring candidates for public appointments because they are not post graduates. Our diploma ought to warrant the appointment, but afterwards train him according to the work he is expected to undertake.



In conclusion, I must apologise for the haphazard outline of my remarks; my paper has been compiled at irregular moments. Nevertheless we want the Royal College to be popular and up-to-date in its procedure, being as it is the disciplinary and diploma granting body of the profession. We urgently ask for a recasting of our curriculum, that the weak and even missing links may be installed and made strong, and our qualification accepted as a standard of efficiency and action. The time has arrived when the horse must no longer be held as the primary subject of our teaching to which everything else is subsidiary, but each class of patient—ox, sheep, pig, and dog—must be separately and specially considered, with the collateral sciences attached thereto.

In the unavoidable absence of Mr. Holburn, the paper was read by Mr. Brittlebank.

Mr. LAWSON proposed that, as Mr. Holburn was not present, the discussion of the paper be adjourned until the next meeting. Mr. Stent seconded, and it was agreed.

A vote of thanks to the Chairman terminated the meeting.

J. W. BRITTLEBANK, Hon. Sec.

#### SOUTH EASTERN VETERINARY ASSOCIATION

A special meeting was held at the County Hotel, Canterbury, on Saturday, April 5th, for the purpose of considering the Board of Agriculture's Tuberculosis Order of 1913. The President of the Association (Mr. James Crowhurst, F.R.C.V.S.) was in the chair, and among others present were Messrs. E. Lyne Dixon, Margate; Percy Gregory, Tonbridge; Elmer Ebbetts, Rochester; Thomas Hibbard, Gillingham; William Caudwell, Chertsey; W. H. Crowhurst, Canterbury; E. Morgan, Faversham; T. F. Hogben, Ash; C. Crowhurst, Maidstone; H. P. Hogben, Folkestone; G. W. Dunkin, Canterbury; W. W. Gulliford, Hythe; Major Edwards, A.V.C., Canterbury; J. W. Richardson, Deal; and Mr. Theo. C. Toope, Dover, Hon. Secretary.

The SECRETARY explained that he had called the members together that day on what he might say was a momentous occasion. It was momentous because the veterinary surgeon would no longer be in what he called police hands but would be the policeman himself, and empowered to inspect all animals in dairies, which he considered was an advance in the right direction. (Hear, hear.) It was an important matter, and he had sent notices of that meeting to all veterinary inspectors in the county, irrespective whether they were members of the Society or not, and he was pleased to say that there were few who were not members, for practically all the principal country veterinary surgeons in the county now belonged to their Association. He had received letters from a large number of gentlemen who had found it impossible to be present at that meeting that day. Messrs. Coveney, Smith, Michael Moss, Samson, J. B. Martin, Nicholson Almond, Washford, William Shipley, P. J. Austin, E. W. Morris, Frank Roberts, Arthur Whicher, had all written regretting their inability to be present. Two or three telegrams also arrived from other gentlemen who had promised to attend. He might say that since the last meeting two new members had joined, and that he had promises of several more joining.

The PRESIDENT extended a hearty welcome to all the members present, and said he was glad they felt sufficient interest in the matter to attend that meeting. He thought everyone would agree that so far as they had gone with their Association, their work had been fraught with considerable success, for they were reaping the benefit, in their pockets being somewhat heavier than they were when they last met. (Hear, hear.) It was

every encouragement to them to go on. They had a most friendly Council in the County Council of Kent, who were well disposed towards their Association. He could say that without fear of contradiction, because the County Council was willing to seek their advice rather than be led by the advice of other bodies, and he believed they would do so even more in the future. The matter they had to consider that day was more important than when they went to the County Council on the last occasion. They thought it better to approach the County Council in the first place. He believed they might influence them to adopt measures satisfactory to that Association as well as to themselves. He was sure that with the friendly feeling existing between the County Council and the inspectors they would attain the best services that each one of them could give.

#### TUBERCULOSIS ORDER, 1913.

By THEO. C. TOOPE, M.R.C.V.S.

Sir and gentlemen,—I propose firstly to give a brief *résumé* of the Order of the Board so far as it affects ourselves: then to draw your attention to some points in it which demand our careful consideration: and to follow with some suggestions that have forced themselves upon me in carefully going through the Order and its accompanying circular letter, leaving you to supply the blank for any further enlightenment. Please do not expect a masterly analysis, but rather the views of an everyday practitioner and an inspector under the Contagious Diseases of Animals Act.

All chronic diseases of the udder must be notified, if in the form of induration or suspected tuberculosis. Also suspected tuberculosis with emaciation.

Notification must be to a constable or inspector, which includes veterinary inspector, who in turn must notify Local Authority of district in which animal is. If veterinary practitioner other than veterinary inspector notifies, he is entitled to a fee of 2/6 for each notification.

With all practical speed the veterinary inspector shall visit and determine if suffering from tuberculosis of udder, if giving tuberculous milk, or suffering from emaciation arising from tuberculosis. He is also empowered to examine any other bovine animal on the premises for the same purpose.

The veterinary inspector is also empowered to apply the tuberculin test to such as he suspects, on obtaining written sanction of owner or his accredited agent. Further, he has power of entry at any reasonable time; can take what samples he thinks is necessary, and all reasonable access and assistance must be given him, default of such being an offence at law.

His next duty is to report the result of his inspection to the Local Authority who if not the Sanitary Authority of the district must report thereto by sending a copy of his report.

If no tuberculous disease is found, the Local Authority shall give written notice to the owner that the preliminary precautions taken no longer apply.

Slaughter. When the Local Authority is satisfied by the veterinary inspector that tuberculosis exists in either of the above forms, they shall give notice in writing on forms set forth to the owner and to the Board, and forthwith cause the animal to be slaughtered, provided the owner or his agent has not given written notice of his objection to this being done either to the Local Authority, inspector, or other officer. In each case the special authority of the Board of Agriculture must be obtained, which special authority will not be given if the animal's value is above £30, if and so long as it is detained and isolated and the milk dealt with as directed in the Order.

If over £30 in value no action must be taken without the consent of the Board.



**Compensation.** Local Authority—*i.e.*, veterinary inspector and owner—must agree on *present value* of animal in writing. If they cannot, such value must be ascertained by a valuer appointed by them or by the Board, who in each case shall be paid by the Local Authority.

The valuer shall give to each a certificate of value; due regard being given to any act or order dealing with the sale of milk, its products, or the carcase as human food.

Two valuations must be fixed. The first on the assumption that the animal proves diseased. The second on the assumption that the animal proves post mortem to be free from disease; certificates to be given accordingly.

**Post-mortems.**—A post-mortem examination must be made by the veterinary inspector at the time of slaughter, or later if owner requests another veterinary surgeon being present to be appointed by agreement between Local Authorities and owner. If they cannot agree then a veterinary surgeon will be appointed by Board of Agriculture; the Local Authorities paying him for his services, certificates to be given on forms.

If post mortem is not carried out, or if certificates show no Tuberculosis:

Compensation is paid on the second valuation with 30/- in addition.

If Tuberculosis is present but not in the advanced stage, three-fourths of the value shall be paid to the owner, less half the costs of the valuer or of the veterinary surgeon, should he be other than the veterinary inspector and the valuation not by agreement.

**Advanced Tuberculosis** is indicated by (1) Miliary Tuberculosis of both lungs; (2) Lesions on Pleura or Peritoneum; (3) Lesions in intermuscular or lymphatic system generally. (All or any of these is sufficient to constitute advanced stage); (4) Tuberculosis with emaciation. Compensation in these cases shall be *one quarter* the value, or the sum of 30/-, whichever is the greater, less half the expenses of independent valuer or veterinary surgeon if employed.

**Milk.**—Milk from a diseased udder must not be mixed with other milk until the veterinary inspection, nor until the inspector gives written sanction. Such milk must be sterilised or boiled before use, also the vessels used. The Local Authorities or their inspector may immediately apply restrictions by written notice.

The inspector can detain and isolate suspicious cases by written notice. He can cause suspicious animals to be removed from fairs or markets, etc. If moved into the district of another authority he must give them notice. He can order disinfection and cleaning to be carried out to his satisfaction at the expense of the owner; in default of either the owner or his agent renders himself liable to penalties prescribed in the Contagious Diseases of Animals Acts.

**Summary.**—The work required of us may be thus tabulated and the principal points for discussion are as follows:—

First. Ante mortem examination of suspected animal and others associated with it. This gives us the right of inspecting the dairy cattle or others; (2) Suspicious emaciation; (3) The application of the Tuberculin Test; (4) Micro examination of milk, faeces or other discharges; (5) Valuation of the animal or animals; (6) Post-mortem examinations; (7) Disinfection and cleansing.

For each of these items we are entitled to fees, also for mileage to and from the place visited; such also require your consideration.

Let us take these items *seriatim* and consider them.

(1) Ante mortem examination; here our first difficulty arises. Tubercular mastitis is by no means easy to differentiate from other forms, and bacteriological

examination of milk is not an easy, or at all times satisfactory matter. The bacillus is elusive at times.

(2) Emaciation may arise from other causes than Tuberculosis, and one's reputation is easily jeopardised by mistakes in diagnosis in either of the above.

(3) The Tuberculin Test to be useful must be thorough, aseptic, and with standard Tuberculin, not less than 2 previous and 3 subsequent thermometric records taken, which should be charted and indexed for future reference; on this we shall mainly have to base our diagnosis.

(4) Microscopic examination needs care, some amount of practice and biological knowledge, a good microscope and accessories, and with those, from experience, I can say you will feel you have earned your fee when you have fully satisfied yourself of the existence or non-existence of the bacillus. Still it is our work, and we should make ourselves efficient to do it if not already so.

(5) Valuation. (a) By agreement with owner or his agent. Even this is no sinecure. The owner will set a value from two points of view—what he considers it worth in health or what it has actually cost him to purchase or produce, and not its *present* condition and value. It appears to me valuation by agreement does not render us liable to a licence. (b) By licensed valuer; here the matter does not affect us personally, except as professional referees.

(6) Post-mortem examinations. Here our responsibility is great. Unless disease is very patent the owner will not be content when small lesions are pointed out to him, and although I have never found an animal that has responded to the test—absolutely free from Tuberculosis; on several occasions the lesions have been found with difficulty, and not well marked enough to convince a lay mind, prejudiced somewhat by the differences in compensation. Here, too, we may come into collision with our neighbour at times.

(7) Disinfection needs a passing thought, but the general conditions under which cows are kept ought have been dealt with in the order.

(8) Remuneration needs reconsideration also.

The order has defects probably, but is a step in the right direction and will do much, in my opinion, to diminish the disease in man, and especially amongst children, notwithstanding the adverse opinion of some of the medical profession, who despite the general acceptance as a fact that Bovine Tuberculosis is communicable to men, ridicule the attempt being made now that our profession is called upon to assist in conferring a benefit to humanity.

Mr. TOOPER added that he had avoided allusion to the Milk and Dairies Bill, and he had done so for a reason. The probabilities were that that Bill would be largely amended—if it had not already been done. He had applied for a copy of the Bill, but he was told it was not ready. He heard that copies had been sent out in their old form and that they had been seriously objected to. He could say, as Secretary of the Southern Branch of the National Association, that he attended a meeting at the Royal Sanitary Institute in London on the 11th of last month when the speakers generally were Medical Officers of Health, and he was extremely sorry to hear some of the expressions of opinion that were given. Some most extraordinary statements were made. One Medical Officer of Health suggested that it was advisable that the Milk Bill should be held over until sanitary inspectors specially selected should be taught to diagnose and deal with tubercular disease in cattle, and the medical officer who expressed that view was supported by one or two others. Another suggested, and suggested very forcibly, that this Order and the Milk Bill were absolutely unnecessary and uncalled for, as there was very little or no chance of the human subject taking tuberculosis through milk, in spite of the fact which had



been proved that it was one and the same bacillus that caused certain forms of the disease in man and in animals. He thought that they, unfortunately, had had enough proof that tubercular disease of the throat was largely due to milk from tuberculous cows. He regretted to hear men speak in that way. One or two other speakers—practical dairymen and milk sellers, dealt with the matter more fairly. They suggested that if the medical officers of health had to do with this matter without the assistance of the veterinary surgeon, cow keepers might as well give up, and that dairymen might as well cease operations for ever. He came to the conclusion that the majority of the owners of cattle had made up their minds that if the Veterinary Surgeon was not the real Medical Officer of Health as far as animals were concerned, the Bill would be a fiasco from beginning to end. The exact context of the Bill he did not know. The Tuberculosis Order officially came out ten days previously, and he was able to say something with regard to it. He learned that day that a new circular letter had been sent out. This Tuberculosis Order is an important matter, and he thought no excuse was needed for calling them together that day to consider it. In discussing it, he thought perhaps it would be well if they first dealt with the question of the ante-mortem examination of suspected animals, and followed his paper in due sequence.

### Royal College of Veterinary Surgeons.

#### QUARTERLY MEETING OF COUNCIL.

A quarterly meeting of Council was held at the College, 10 Red Lion Square, London, W.C., on Friday afternoon, 11th April, 1913. Prof. A. E. Mettam, President, occupied the chair, and the following members were present: Major-General Sir Francis Duck, Major-General Pringle, Major-General Thomson; Professors Bradley, McCall, Sir John M'Fadyean, and Shave; Messrs. Abson, Banham, Barrett, Burt, Carter, Clarkson, Dunstan, Garnett, Lawson, Lloyd, Mason, McL. McCall, McKinna, Mulvey, Price, Roberts, Share-Jones, Shipley, Slocock, Sir Stewart Stockman, Messrs. Sumner, Trigger, and Wharam; Mr. George Thatcher (Solicitor), and Mr. Fred Bullock (Secretary).

On the motion of Mr. Mulvey, seconded by Mr. McKinna, the minutes of the last meeting, which had been printed and circulated, were taken as read and confirmed.

#### OBITUARY.

The SECRETARY read the Obituary list.

Mr. MULVEY: Among that long list appear the names of two distinguished members of the profession who occupied seats for a considerable time on this Council, and I rise to ask the members of the Council to pass a vote of condolence with their families. Mr. Hedley held a distinguished position in Ireland, and Mr. Bower held a distinguished position in England in the district in which he resided. Both of them were a credit to the profession to which they belonged, and we regret their death.

Mr. TRIGGER. I rise to second the resolution. It was my privilege to sit on this Council with both those gentlemen, and I assure you I endorse every word Mr. Mulvey has said. They were both an ornament to the profession. We all remember the genial presence of Mr. Bower, and everybody remembers him for his good fellowship as well as for his excellent qualities. His loss is a sad one. I am sure also the members of the

profession generally will extend their sympathy with ours to the families of those members who have died; but in these cases we should follow precedent and send votes of condolence.

The resolution was passed in silence, all present up-standing.

#### CORRESPONDENCE.

The SECRETARY announced that he had received from the President of the Seventh International Congress against Tuberculosis held in Rome last April, a copy of the resolutions passed at that Congress.

Also, he had received an invitation to attend the International Congress for the fight against the Deterioration and Adulteration of Food Stuffs to be held at Ghent in August, 1913.

The Council would remember that he was instructed to communicate with the Secretary of the International Congress on Comparative Pathology and with the Foreign Office, and to ask them if there was any reason why the College had not been invited to attend that Congress. The following reply had been received from the Foreign Office:

"Foreign Office, Feb. 18, 1913.

Sir,—With reference to your letter of the 21st ult., I am directed by the Secretary, Sir E. Grey, to inform you that invitations to His Majesty's Government to participate in the International Congress on Comparative Pathology, and in the celebrations of the anniversary of the Veterinary School at Lyons, were duly received at this office from the French Ambassador in London and from the Bureau of the Permanent Commission of the International Veterinary Congresses at Leiden, on May 21st and September 10th of last year respectively. In accordance with the usual practice these invitations were communicated to the Departments of His Majesty's Government interested.

The Secretary of the State for Foreign Affairs fears that he cannot undertake to circulate information as to such Congresses direct to the societies and corporations which may take an interest in the matters to be discussed thereat, but he relies upon the other Government Departments to see that the necessary particulars are made known to such bodies in this country.

Sir E. Grey has been in communication with the Board of Agriculture and Fisheries on the subject, and he has been informed by the Board that in their opinion the College of Veterinary Surgeons should receive information regarding any International Veterinary Congress which may be officially notified to His Majesty's Government in future, and that they will be glad to take the necessary action on such occasions if desired.

I am to suggest, therefore, that you should put yourself into communication with the Board of Agriculture and Fisheries to ensure that future invitations are duly received by the College.—I am, sir, your most obedient humble servant,

(Signed) A. LAW."

The PRESIDENT: I think that is a very satisfactory reply.

The SECRETARY: I have had considerable correspondence with M. Grollet, the Secretary of the International Congress held at Paris last October, which I need not read to you. Briefly I may say that M. Grollet regrets that we apparently did not receive an official intimation direct with regard to the Congress, and he promises that in the future so far as he is concerned he will see that such an omission does not recur. He states that probably one reason why we may have been omitted from the invitations sent from the Continent is that our name does not appear in a handbook of universities published at Stuttgart by Messrs. Trubner, and which apparently is the book which is consulted by the secretaries of Congresses in such cases. I have com-

municated with the publishers of that handbook, and they have promised me that in future the name and full particulars of the Royal College of Veterinary Surgeons shall be inserted. (Hear, hear).

#### PRESENTATIONS TO THE LIBRARY.

The SECRETARY announced that the following presentations to the Library had been made since the last meeting of Council :—

Regional Veterinary Surgery and Operative Technique, by Jno. A. W. Dollar, M.R.C.V.S., F.R.S.E., M.R.I.; A Surgical Operating Table for the Horse, by Jno. A. W. Dollar, M.R.C.V.S., F.R.S.E.; Cadiot's "Clinical Veterinary Medicine and Surgery," translated by Jno. A. W. Dollar, M.R.C.V.S., F.R.S.E.

By Dr. Leon Moule :—Lettre D'Anoblissement pour Les Parents de Claude Bourgelat ; Antoine Vallot ; Saint Eloi guerisseur et la Legende du pied coupe ; Correspondence de Claude Bourgelat ; La Faune d'Homere ; Spicilge Vétérinaire ; Turgot et l'Ecole Vétérinaire de Limoges.

The Calendar of the Pharmaceutical Society of Great Britain, 1913 ; The Registers of Pharmaceutical Chemists and Druggists, 1913 ; Calendar of the Pharmaceutical Society of Ireland, 1913 ; Calendar of the Edinburgh University, 1912-1913 ; Memoirs of the Department of Agriculture in India, Vol. 1, No. 1, and Vol. 1, No. 2 ; Indian Civil Veterinary Department Memoirs, No. 3 ; Report on Higher Education in the State of New York, 1911 ; Municipal Council of Johannesburg, Report of Director of Abattoir and Live Stock Market, 1911-1912 ; Reports to the Local Government Board on Public Health and Medical Subjects ; *The Rhodesian Agricultural Journal*, December, 1912, and February, 1913 ; Bulletin of the Yellow Fever Bureau, Vol. II, No. 3, January, 1913 ; *Revue de Pathologie Comparée*, December, 1912, January, February, and March, 1913 ; *The Journal of the Board of Agriculture*, January, February, and March, 1913 ; Orders of the Board of Agriculture and Fisheries ; *The Bloodstock Breeders' Review*, December, 1912, and April, 1913 ; *The Veterinary Journal*, *The Veterinary News*, and *The Veterinary Record* for the quarter ; *Journal of Comp. Path. and Therapeutics*, March.

On the motion of Mr. Lawson, seconded by Mr. Mulvey, a hearty vote of thanks was accorded to the respective donors.

#### FINANCE COMMITTEE.

Mr. LAWSON read the following Report of a meeting of the Finance Committee held on April 11th, and moved its adoption :—

*Financial Statement.* The Treasurer submitted his financial statement for the quarter. And it was resolved, That the statement be approved and that the Treasurer be ordered to pay the liabilities shown, together with cheques for monthly salaries, petty cash, insurance, Fellowship Examiners' fees, gas, and electric light.

*Donations.* The Secretary reported the receipt of donations of one guinea each from three Members of the profession, and it was resolved that the donations be accepted with thanks.

*Register, 1912.* The Secretary submitted his account for the sale of Registers, 1912, which was considered very satisfactory.

*Finance Act.* The Secretary reported that the Commissioners of Inland Revenue had made the following provisional valuation of the site and building at 10, Red Lion Square :—

Original gross value	£3,600
Value of building	855
Original full site value	£2,745
Original assessable site value	£2,745

Mr. ABSON : I second the motion for the adoption of the Report.

Mr. BARRETT : It is rather difficult to follow the figures in regard to the Finance Act as they are read on the Report. I merely wish to say that I suppose the Committee have thoroughly considered them, and have considered the desirability or otherwise of taking steps to have them reduced or augmented as the case may be.

Mr. LAWSON : The matter was fully entered into this morning, and was quite accepted by the Committee.

Mr. BARRETT : As they stand ?

Mr. LAWSON : Yes.

Mr. WHARAM : I rather take exception to the statement that we considered this fully. I hardly think this assessment is on the lines it should be. My idea is that under the Act, if we could prove that this site cost more at any time before 1909 we should not have to pay Increment duty on any sum providing it was sold above the sum it originally cost. That is a proviso that is put in the Finance Act. I certainly consider that this sum of £2,745 for the site value should be carefully considered, and, if necessary, appealed against.

Mr. THATCHER (Solicitor) : If I may intervene for one moment, I should like to say that I think the Council will be well advised to accept these figures, because I happen to know what the site cost, and I think that this is a liberal assessment. In the event of our ever having to sell we should not run any risk, because the increment value duty is only calculated upon the increase in value of the site value independent of the buildings. Therefore if I may pass judgment on the Committee I think their recommendation is a very good one and it should be accepted.

Mr. ROBERTS : That is the conclusion we came to this morning.

Mr. MULVEY : In addition to that I should like to say that if any alteration is made in this valuation, if the appeal was successful and the valuation was increased, then it would automatically follow that our assessment would be increased, and we should be called upon at once to pay a very much increased property tax.

The resolution for the adoption of the Report was then put and carried unanimously.

#### EXAMINATION SYLLABUS SUB-COMMITTEE.

Mr. MULVEY read the following Report of the Examination Syllabus Sub-committee :—

The Examination Syllabus Sub-committee beg to report that they have now completed, as far as appears to be practicable, the revision of the Examination Syllabuses, and they propose to circulate to the Members of Council copies of the draft revised Syllabuses in time for the July meeting.

On the motion of Mr. Mulvey, seconded by Mr. Mason the Report was adopted.

#### EXAMINATION COMMITTEE.

Mr. MULVEY read the following Report of a meeting of the Examination Committee held on the 10th April, 1913 :—

*Correspondence.* A letter (April 8th, 1913) was received from Mr. G. D. Smith, applying for exemption from the Preliminary Educational Examination, but it was resolved.

That the application could not be acceded to.

*Educational Certificates.* Educational Certificates numbered 1338 to 1345 were submitted and approved.

*Special Prize Certificates.* The Secretary submitted a draft of the form of certificate, and was instructed as to the alterations to be made.

*Preliminary Educational Examinations.* The question of the continued recognition of certain Preliminary Educational Examinations was considered. And it was resolved : That a Sub-committee, consisting of Dr. Bradley, Prof. McCall, Sir John M'Fadyean, Prof.

Mettam, Messrs. McKinna, Mulvey and Share-Jones be appointed to consider the matter and to report as to the steps necessary to be taken.

On the motion of Mr. Mulvey, seconded by Mr. McKinna, the Report was adopted.

#### REGISTRATION COMMITTEE.

The SECRETARY read the Report of a meeting of the Registration Committee held on Thursday, April 10th, which stated that the Solicitor reported that convictions had been obtained in three cases, Mr. Hedley Fairley being fined £1 and three guineas costs; Mr. Evans being fined £5 and three guineas costs, and Mr. Petchell being fined £2 and costs.

The Committee proceeded to consider 23 cases of various descriptions. In the case of Mr. Amos Wilkinson, the Solicitor submitted evidence of a conviction of this member, for conspiring to obtain goods by fraud, with a sentence of nine months hard labour, and the member appeared in answer to a summons to show cause why his name should not be removed from the Register.

After hearing the member it was resolved "That in the opinion of the Committee the conviction against Mr. Amos Wilkinson is proved."

In the case of Mr. J. T. Firr, the Secretary submitted evidence of a conviction of this member on a charge of cruelty, and the member appeared in answer to a summons to show cause why his name should not be removed from the Register.

After hearing the member, it was resolved, "That in the opinion of the Committee the conviction against Mr. J. T. Firr is proved."

The SOLICITOR reported that in a "Canine Surgery" case he had instituted a prosecution, but the summons had been dismissed with five guineas costs. It was resolved that the matter be referred to the Standing Counsel for an opinion, and that the Solicitor be authorised to act in accordance therewith.

In a case of touting, the Secretary was instructed to inform the Complainant that if he could supply proper evidence, the member complained of would be called upon to appear to show cause why his name should not be removed from the Register.

Instructions were given with regard to the course of procedure to be followed in the other cases.

*Correspondence.* (a) A letter (April 6th, 1913) was received from Mr. T. J. Faithfull, formerly Mr. T. J. Faithfull-Davies, reporting the discontinuance of the second part of his surname, and submitting a copy of a public notice announcing the fact. It was resolved that the Registrar be instructed to make the necessary alteration in the Register of Veterinary Surgeons.

(b) Several publications were submitted containing advertisements in which testimonials from veterinary surgeons were included, and the Secretary was instructed to communicate with the members in question, asking for an explanation.

*Restoration.* An application was received from Mr. G. Bailey for the restoration of his name to the Register, it having been removed under Section 5, Sub-section (4) of the Veterinary Surgeons Act, and it was resolved to recommend, that the name of Mr. George Bailey be restored to the Register of Veterinary Surgeons.

On the motion of Mr. Price, seconded by Mr. Lloyd, the report was adopted.

*Removals.* Mr. MULVEY: I now move—"That the name of Mr. Amos Wilkinson be removed from the Register of the Royal College of Veterinary Surgeons."

Mr. LAWSON: I second that.

The resolution was then put and carried unanimously.

Mr. MULVEY: I now move—"That the name of Mr. John T. Firr be removed from the Register of the Royal College of Veterinary Surgeons."

Mr. LAWSON: I second that.

Mr. BARRETT: I am sorry I was not here yesterday when this case was investigated, as I should like to know what the circumstances were.

[After a short discussion, the Council resolved itself into Committee in order that Mr. Barrett might be informed the nature of the case].

The Council having resumed its public proceedings, Mr. Mulvey's motion, that the name of Mr. John T. Firr be removed from the Register of the Royal College of Veterinary Surgeons, was put and carried unanimously.

On the motion of Mr. Mulvey, seconded by Mr. Roberts, authority was given for the Seal of the College to be affixed to the prosecution mentioned in the report.

#### PARLIAMENTARY COMMITTEE.

Mr. MASON, at the request of Mr. Garnett, who was suffering from a sore throat, read the following report of a meeting of the Parliamentary and General Purposes Committee held on April 10th:

*Correspondence.* A letter (9/4/13) was received from Mr. T. H. Greig, making application for the admission of ladies to the courses of instruction for the Diploma of M.R.C.V.S.

The Secretary was instructed to reply stating that the conditions as to admission into the Veterinary Colleges were not under the control of this Council.

*Parliamentary Bills.* The following Parliamentary Bills were considered, together with correspondence thereon:—Milk and Dairies Bill, Milk and Dairies (Scotland) Bill, Dogs (Protection) Bill, Docking of Horses Bill, Animals (Anaesthetics) Bill, Coal Mines Consolidation Bill.

It was resolved: (a) Milk and Dairies Bill. That in the opinion of this Committee the following amendments are required in this Bill: Section 2 (1) To substitute the words "to take with him" in place of the words "if accompanied by" in lines 6 and 7, the last clause thus reading—"and to take with him a veterinary inspector or some other properly qualified veterinary surgeon to inspect the cattle therein."

Section 2 (2). In line 21 to substitute for the words "and the cattle therein being accompanied for the purpose of the inspection of the cattle by a veterinary inspector or some other properly qualified veterinary surgeon," the words "and shall require a veterinary inspector or some other properly qualified veterinary surgeon to accompany him and to examine the cattle therein."

(b) Milk and Dairies (Scotland) Bill. That in the opinion of this Committee the following amendments are required in this Bill. Section 15 (1), line 13, after the word "if" to add the words "necessary shall be." Line 14 to substitute the word "to" for "shall."

(c) That a Sub-committee consisting of Dr. Bradley, Mr. Garnett, Sir John M'Fadyean, Prof. Mettam, Mr. Mulvey, and the Solicitor, be appointed to take such action as they may consider necessary for the purpose of securing the insertion of these amendments in the Milk and Dairies Bill and the Milk and Dairies (Scotland) Bill.

(d) Dogs (Protection) and Docking of Horses Bills. That these Bills be watched in the interests of the profession.

(e) Coal Mines Consolidation Bill. As this Bill is intended to represent the existing statute law, no action is necessary.

(f) Animals (Anaesthetics) Bill. The Committee does not approve of this Bill.

*Tuberculosis Order, 1913.* The Secretary submitted a copy of the Tuberculosis Order of 1913, issued by the Board of Agriculture on the 13th Feb., 1913.

**Public Veterinary Services.** The Secretary submitted a copy of the report of the Departmental Committee appointed to inquire into the requirements of the Public Services with regard to the officers possessing veterinary qualifications.

Mr. GARNETT : In moving the adoption of the report I would like to say one or two words because of the importance of the Bills dealt with. Both Mr. Bullock and myself, on behalf of this College, have received certain communications from gentlemen, and also from various Veterinary Societies, with regard to the Milk and Dairies Bill, but unfortunately all these letters have reference to the Bill that was presented to Parliament last year. That Bill is entirely dead, and the new Bill, which the Committee considered yesterday, is the Bill which was presented at the end of March this year, and which, if I may say so, is totally different from the one that was presented last Session. I make this statement because many members of the College seem to be under the impression that the Council have not paid sufficient consideration to the objections that they had to the Bill of last Session. At the present time it is the desire of the Committee that the whole profession should concentrate their energy on the essential parts which we want remedied in the present Bill, and in order to do that, the Committee recommend that the matter be left in the hands of a small Executive Committee, with power to take such steps as they may think necessary in order to safeguard the position of the profession. If you adopt the report, you will empower that Committee to spend perhaps a considerable sum of money in attaining our ends, but as Mr. Mulvey is on that Committee I think you may rest assured that no money will be allowed to be thrown away. There is no doubt that there are several avenues open to that Committee to attain those ends. The profession may rest assured that they will be communicated with, and it is to be hoped that any action that that Committee may take will be supported by the members of the profession throughout the country. (Hear, hear.) I am quite convinced that, in order to obtain the aims of that Committee, we must act as one united body, irrespective of all political principles. (Hear, hear.) It is entirely in the interests not only of ourselves, but of the great body of agriculturists in the country, and it is in united action that our strength lies. With regard to the other Bills—the Dogs' Protection and the Docking of Horses Bills—these two Bills have been blocked, as they are not in the interests either of dogs or horses, as well as ourselves. The Coal Mines Consolidation Bill is one that I wish to draw your attention to, because that Bill is simply a Bill which consolidates all the laws relating to coal mines, and embodies the main principles of the Bill which affected this profession in the Coal Mines Bill of last year. We had a good deal of work over that, and this Bill simply consolidates and incorporates the provisions included in last year's Bill. The Animals Anaesthetic Bill is another old measure which was brought forward last session also, and which did this College a considerable amount of harm. I want it to be clearly understood that this College and the veterinary profession are in no way responsible for that Bill. With these remarks I propose the adoption of the report.

Mr. ROBERTS : I second that.

Mr. LLOYD : I would like to have your ear for a few minutes in reference to the Milk and Dairies Bill. You will agree with me I am sure that the present time is a very important one as regards the welfare of veterinary surgeons, particularly those interested in milk and dairy inspection. I would like to call the attention of the Council to this fact, that whatever is done under this Milk Bill will, to a very great extent, be permanent. Our experience with public health Acts takes us back to 1875. It is pretty well agreed that that Act should be withdrawn and another one substituted in its place ;

but instead of doing that, Governments keep patching it up. I think instead of having a patched-up Milk and Dairies Bill the veterinary profession ought to see that the present Bill is made as much to our liking as we possibly can get it. I am not going to say that I am not in agreement with the action of the Committee yesterday ; I agree with everything that has been done, but I do not think it goes far enough. My reason for saying this is that we have the agriculturist to consider ; we have the milk and meat producing public to consider, and we have also the profession to consider. The appointment of a veterinary inspector to be of any good ought, to my mind, to be compulsory, whereas in both Bills it is optional. In the Scottish Bill, however, it does give power to every local authority in the country to appoint veterinary inspectors, Clause 3 of the Bill running as follows : "Every local authority may, and when required by the Local Government Board for Scotland (herein-after referred to as the Board) shall appoint a member of the Royal College of Veterinary Surgeons to act as veterinary inspector under this Act, and shall pay to such inspector a salary approved by the Board, and the name and address and salary of such inspector shall be reported by the local authority to the Board immediately on his appointment. A veterinary inspector so appointed shall not engage in private practice in any district in which he holds office save with the consent of the Board. Two or more local authorities may combine in appointing a veterinary inspector. No veterinary inspector appointed by the local authority under this Act shall be removable from office, except by or with the sanction of the Board. A veterinary inspector shall, if required by the local authority, nominate a duly qualified substitute, for whom he shall be responsible, and if the local authority shall approve of the nomination, such substitute shall, in the illness or absence of the veterinary inspector, have the same powers and duties as the veterinary inspector under this Act ; and the local authority may at any time, with the consent of the Board, withdraw their approval of such substitute, and may require the veterinary inspector to name for their approval some other duly qualified substitute, and the local authority shall report to the Board the name and address of any substitute nominated and approved under this section. A local authority shall, with a view to carrying on the work pertaining to the office during the period between the resignation or death of a veterinary inspector and the appointment of a successor, have power to make an *ad interim* appointment for such period as the Board may approve. In districts where a veterinary inspector is not appointed in terms of this section, the duties laid on a veterinary inspector under this Act shall be performed by a veterinary surgeon approved by the local authority in terms of Section 43 of the Public Health (Scotland) Act, 1897. When a veterinary inspector is appointed in terms of this section, references in Section 43 of the Public Health (Scotland) Act, 1897, to a veterinary surgeon shall be construed as references to the veterinary inspector so appointed. The local authority shall, subject to the approval of the Board, regulate the duties, for the purposes of this Act, of the veterinary inspector or veterinary surgeon as aforesaid, and his relations to the other officers of the local authority."

That means that instead of a small number of veterinary inspectors being appointed under the Bill the probability is that a very large number will be appointed. In England that is not so, as you will see from Clause 14 : "The Council of any county or any sanitary authority may, and when required by order of the Local Government Board shall appoint, or combine with another such Council or authority in appointing one or more veterinary inspectors, or employ for the purposes of this Act any inspector or other officer ap-





pointed under the Diseases of Animals Act, 1894, and employ a bacteriologist; and any Order requiring a combination of councils or authorities may provide for all matters incidental to such combination, and in particular how the expenses incurred are to be apportioned."

Further, I would say, to ensure good results from the Milk and Dairies Bill and also from the Tuberculosis Order, which practically runs side by side with the Milk and Dairies Bill, that the veterinary inspection of animals should be compulsory. That is not provided in the English Bill, but it is provided in the Scottish Bill. The inspection of cowsheds again is a matter which, from an agricultural and a dairy point of view should, I think, be very largely, if not altogether, in the hands of veterinary inspectors. As proposed in both these Bills, it is going to be in the hands of the medical officer of health and the sanitary inspector in Scotland, and the medical officer of health alone in England. In the interests of clean milk I would go so far as to say that it is quite impossible to have clean milk unless cowsheds are properly constructed; and I venture to say that neither sanitary inspectors nor medical officers of health in their experience of the housing, feeding and so on, of cattle are proper men to advise or to supervise the construction or the alteration of cowsheds. Under the Milk Bill a considerable amount of this work is going to be done, and I say that to have it done successfully it should be supervised by veterinary inspectors.

The Section which I think of most importance to the veterinary profession is Section No. 3 in the Scottish Bill, which I have already read, which gives the local authorities power to appoint veterinary inspectors throughout the country. I am going to propose that Section 3 of the Scottish Bill should be substituted for Section 14 of the English Bill. As you will see under Section 3 of the Scottish Bill, all the local authorities may appoint veterinary inspectors, and when required by the Local Government Board shall appoint inspectors. If they do not do so, the veterinary inspectors already appointed under the Public Health Act in Scotland, 1897, will do the work. You will see the last paragraph of the Section states that the local authorities shall control the work of the veterinary inspector; and if you go on to the next section, Section 4, you will see it says "It shall be the duty of the veterinary inspector from time to time, and once at least in every year, to inspect the cattle in every dairy in the district and to report to the local authority the result of every such inspection." That, I take it, will give veterinary surgeons a standing which at present they do not possess. Since 1901 no public health veterinary surgeon has been appointed except on the staff of the medical officer of health. That means, as far as the status of the veterinary profession is concerned, it is considerably discredited, and the advancement of each individual veterinary inspector is curtailed. I will give you an instance of that. I know one veterinary surgeon in a large town of 250,000 people who was appointed eight years ago at a salary of £250 a year, and it has taken him eight years to get an advance of £35. I know of another veterinary surgeon who was appointed twelve years ago. He had a guaranteed increase for the first six years of £100, and it has taken him six years more to get a further increase of £25. We have been told that as the practices of veterinary surgeons decrease through motor traffic and other causes, we shall have additional duties put on us by public health work; but if we are not going to get some financial advancement altogether in excess of what I have just stated—and I could quote far worse instances than those—I do not think the whole-time appointments will be of very much advantage to the veterinary profession. I think all veterinary surgeons acting under local authorities should

be able to act on their own responsibility and from their own professional standpoint, as medical officers of health do. They should be able to report direct to the local authorities, and they should not be under the medical officer of health. If Section 3 of the Scottish Bill is substituted for Section 14 of the English Bill I think it will be a lever in that direction, and will give veterinary surgeons a chance of making a department and a standing for themselves. I beg to move "That Section 3 of the Scottish Bill be substituted for Section 14 of the English Bill."

The PRESIDENT: That is, as an addendum to the report?

Mr. LLOYD: Yes.

Mr. GARNETT: Although that amendment has not been seconded, I should like to be allowed to point out that Mr. Lloyd is under an entire misapprehension. Section 14 of the English Bill refers distinctly to an inspector appointed under the Diseases of Animals Act, 1894, and the appointment under the Diseases of Animals Act, 1894, cannot in any sense whatever be under the medical officer of health.

Sir STEWART STOCKMAN: To my mind it is taking away the safeguard of this Bill by proposing that the veterinary surgeon should be appointed under what is really a Public Health Act. Under the Public Health Act he is put under the medical officer. By appointing him under the Diseases of Animals Act he remains a veterinary surgeon, on my reading of it. But I am quite with Mr. Lloyd in what he says about the veterinary surgeon not being under the medical officer.

Mr. SHARP-JONES: At the same time I should like to say as a member of the Committee that I think we were quite enamoured as a Committee with that particular provision of the Scottish Bill, and in our report we recommend the adoption of Clause 3 so far as it applies to Scotland. It specifies quite clearly the duties of the veterinary surgeon, and the relation of the veterinary surgeon to the medical officer, and further the relation of the veterinary surgeon to the particular authority by which he is appointed. Those matters are set forth in that Clause in a manner which allows of no ambiguity whatsoever. I do not think it is a breach of faith in regard to the Committee of which I am a member if I say that, personally, I quite agree with what Mr. Lloyd has said—that Clause 3 which applies so very nicely to Scotland would apply equally well to England and Wales. If it could be incorporated in the Bill so as to make it apply to England, I think it would be for the advancement of the profession, and would bring a great deal more work to the profession as a profession than the Clause as set forth in the English Bill. The last paragraph of Clause 3 is a very important one, "The local authority shall, subject to the approval of the Board, regulate the duties, for the purposes of this Act, of the veterinary inspector or veterinary surgeon as aforesaid, and his relations to the other officer of the local authority." I think that would give infinite power to the veterinary surgeon—infinite more so than the provisions in the English Bill. We approve of it for Scotland, and are enamoured of it, and I think with Mr. Lloyd that if it could be incorporated in the English Bill it would be to the advantage of the veterinary profession in England.

The PRESIDENT: Do you second Mr. Lloyd's amendment?

Mr. SHARP-JONES: Yes, I second it.

Prof. MCCALL: May I be allowed to make a few remarks with regard to the Bill for Scotland? It seems to me that this very same clause only allows the veterinary inspector appointed to deal with dairies, their construction, milk and what not, but it gives him no power to deal with the living animal in the case of slaughter and compensation. In short, he will be in a position of requiring always to get the inspector of the local authority

to take up his work at that point. Do you follow what I mean? I mean he can take charge in regard to the construction and what not of dairies, but he has no power to deal with the living animal so far as testing the animal as to whether it is affected with tuberculosis is concerned. He has no power to compel that animal to be slaughtered; he has no power for determining the compensation, and he has no power for making the post-mortem. So that you will require two officers; you will require the veterinary surgeon appointed under the Local Government Board and you will require the veterinary surgeon appointed by the Board of Agriculture, and I think that will do a great deal of harm, because undoubtedly it will cause a great amount of friction, and besides you will require two officials and the expense must be much greater. So that, I think, instead of as a body sanctioning the conditions in this clause for the appointment of a veterinary inspector by the Local Government Board, we should in reality object to that, and that the inspector should be an inspector of the Board of Agriculture.

Sir STEWART STOCKMAN: You mean an inspector under the Diseases of Animals Act, not an inspector under the Board of Agriculture?

Prof. McCALL: Yes. The inspectors under the Diseases of Animals Act are quite able to deal with the subject, whereas the inspector appointed by the Local Government Board can simply deal with the animal up to a certain point, and beyond that he is helpless. He must then call in the inspector appointed by the Local Authority.

Sir JOHN M'FADYEAN: Does that mean that you prefer the provisions of the English Act?

Prof. McCALL: No, I do not express an opinion upon the English Act at all, for this reason, that I have not had an opportunity of reading it.

Sir JOHN M'FADYEAN: You object to the provisions of the Scottish Act?

Prof. McCALL: Undoubtedly.

Sir STEWART STOCKMAN: And you have proposed what is in the English Act.

Prof. McCALL: I was not aware of it. I only got a copy of the English Act within the last hour, and I have not had an opportunity of reading it. What I wish to emphasise is that there should be only one veterinary inspector, and that veterinary inspector ought to be the inspector appointed under the Contagious Diseases of Animals Act.

Mr. SHARE-JONES: May I point out to Principal McCALL that, if the Act became law so far as it applies to Scotland, the Contagious Diseases of Animals Act, 1886, would be repealed. It would supersede the Act under which you are arguing now.

Sir STEWART STOCKMAN: It is not the Contagious Diseases of Animals Act, 1886, with which we are dealing. It is the Diseases of Animals Act, 1894.

Prof. McCALL: Am I not right when I say that if this veterinary inspector is appointed by the Local Authority, that individual has no power to deal with an animal and test it; he has no power to value it; he has no power to make post mortem examinations—and that is the most important point of all.

Mr. ABSON: He has no power to slaughter at all under the Milk and Dairies Bill.

The PRESIDENT: Are there any other observations to be made upon this report?

Mr. LLOYD: I should like to make a few remarks in reply.

The PRESIDENT: You have spoken already.

Mr. LLOYD: I thought I could reply and explain any remarks that had been made.

The PRESIDENT: Only through the Chair. You have no right.

Mr. LLOYD: With the permission of the Chair, of

course, and I respectfully say I think I ought to have that permission. (Hear, hear).

Sir JOHN M'FADYEAN: I move that Mr. Lloyd be heard.

The PRESIDENT: Will you proceed, Mr. Lloyd.

Mr. LLOYD: I would like to say, in reference to Sir Stewart Stockman's remarks, that in some places what he has hinted at has already taken place. I could name several towns in the country where the work under the Tuberculosis Order has not been put under the Executive Committee; it has been put under the Sanitary Committee or Health Committee, and in that way it means that the veterinary inspectors working under the Milk and Dairies Bill and under the Tuberculosis Order will be under the medical officer of health. The same thing applies to the remarks of Prof. McCALL. He says that there will be two officers. There need not be two officers. The local authority can appoint the inspector under the Diseases of Animals Act, 1894, just as well as any other veterinary surgeon, if it wishes to do so. More than that, if there are two persons appointed it will mean that either the health department will take over the administration of the Diseases of Animals Act, and so be under the medical officer of health, or they will have to appoint two veterinary inspectors, which they will not do. If they appoint the veterinary inspector under Section 3 of the Scottish Bill there is no doubt he will be a man who will do the work under the Diseases of Animals Act, 1894.

Sir STEWART STOCKMAN: I claim the right of a word of explanation; I will be very short. I do not accuse Mr. Lloyd of wishing to make a mis-statement, but as a matter of fact he has made a mis-statement. He said that the authorities have already arranged for the working of the Tuberculosis Order under the medical officer of health. The Tuberculosis Order is not yet in force, and you have to bear in mind whether that arrangement will be allowed by the Board. I accept your assurance that authorities are trying to work it in that way, although I do not know it personally; it has not been brought to the notice of the Board of Agriculture. I can point to very definite instructions issued in print by the Board of Agriculture as to how this is to be carried out.

Mr. ROBERTS: May I say to the Council and to Sir Stewart Stockman that in my town a meeting of the sanitary authorities has been held, and the duties under the Tuberculosis Order have been relegated to that committee of the Town Council, and they have made arrangements for the carrying out of the Order and have appointed inspectors.

Mr. BANHAM: Is that the same body that carries out the Diseases of Animals Act?

Mr. ROBERTS: No, that is carried out by the Watch Committee, and the other by the Health Committee of the borough. The Tuberculosis Order has been put under the Health Committee, which is practically the medical officer of health.

Sir STEWART STOCKMAN: It is not a fact at present; it has not been allowed.

Mr. GARNETT: I do not think I have anything to reply to really, because any objections that Mr. Lloyd made have already been answered. At the same time I want to assure him that the Committee will be only too delighted to consider any and every objection that either he or anybody else may have against these various Bills. It is our intention to do the very best we can for the profession. (Hear, hear). But what I do want to impress upon this Council and Mr. Lloyd is that when that Committee have arrived at a decision let us be unanimous if we can, and bring the whole weight of the profession to bear on the essential points and get those remedied. (Cheers).

The addendum to the Report, proposed by Mr. Lloyd



and seconded by Mr. Share-Jones, was then put and lost, only three voting for it.

The resolution for the adoption of the Report of the Parliamentary Committee was then put and carried.

#### ANNUAL FEE COMMITTEE.

Sir JOHN M'FADYEAN read the following Report of a meeting of the Annual Fee Committee held on April 11th:—

*Amendment Bill.* The Solicitor reported that the Veterinary Surgeons Act Amendment Bill had been read a first time on 19th March, 1913. The date of the Second Reading was not known.

It was resolved, That a Memorandum explanatory of the Bill be printed and attached to the Bill when next reprinting.

On the motion of Sir John M'Fadyean, seconded by Major-General Thomson, the Report was adopted.

#### HONORARY ASSOCIATES COMMITTEE.

Dr. BRADLEY read the following Report of a Meeting of the Honorary Associates Committee held on April 11th:—

*Chairman.* It was resolved that Dr. Bradley be appointed Chairman of this Committee.

*Honorary Associates.* The question of the election of Honorary Associates was considered, and it appeared to the Committee that it would be appropriate to confer a number of Honorary Associateships on the occasion of the forthcoming International Veterinary Congress.

It was resolved, That the meeting be adjourned until July for the further consideration of the matter.

On the motion of Dr. Bradley, seconded by Mr. Sumner, the Report was adopted.

#### LIBRARY AND MUSEUM COMMITTEE.

Mr. CARTER read the following Report of a meeting of the Library and Museum Committee held on April 11th:—

*The Chairman.* It was resolved that Mr. J. H. Carter be appointed Chairman of this Committee.

*Adjournment.* Owing to the pressure of the business of other Committees, it was resolved that this meeting be adjourned until July.

On the motion of Mr. Carter, seconded by Mr. Banham, the Report was adopted.

#### FELLOWSHIP DEGREE COMMITTEE.

The PRESIDENT read the following Report of this Committee:—

The Fellowship Degree Committee beg to report that they have held two meetings since the date of the previous Council meeting, and have made progress with the consideration of the Regulations for the Fellowship Degree and the drafting of Regulations for a new Diploma in Veterinary State Medicine. The further consideration has been deferred to the next meeting, which will shortly be held.

On the motion of the President, seconded by Mr. Mulvey, the report was adopted.

#### ELECTION OF EXAMINERS FOR MEMBERSHIP AND FELLOWSHIP EXAMINATIONS.

The Council then resolved itself into Committee for the purpose of hearing read the testimonials that had been received from the various candidates for Examiners in the Membership and Fellowship Examinations.

The Council having resumed its meeting in public, the election was proceeded with.

The Following candidates had been nominated:—

#### Membership Examination.

*Anatomy.* **Class A.**  
J. Blakeway, F.R.C.V.S., nominated by W. J. Mulvey.  
W. J. B. DeVine, F.R.C.V.S., D.V.S.M.—R. C. Trigger.  
W. Cargill Patrick, F.R.C.V.S.  
Thomas Runciman, F.R.C.V.S.

#### Chemistry and Physics.

J. M. H. Munro, D.Sc. M.E.C.S., F.I.C., L.R.C.P.  
W. J. Mulvey  
H. Somerville, B.Sc., M.E.C.S., L.R.C.P., F.C.S. "

#### Biology.

W. E. Agar, M.A., D.Sc., Fell. King's Coll.,  
Camba. W. J. Mulvey  
W. B. Bottomley, PH.D., M.A., F.L.S., F.C.S.  
Fellow King's Coll., London, "

#### Anatomy.

**Class B.**  
H. G. Bowes, F.R.C.V.S.,—J. Clarkson, A. W. Mason  
W. J. B. DeVine, F.R.C.V.S., D.V.S.M.—R. C. Trigger  
W. E. Ison, F.R.C.V.S.,  
Thomas Runciman, F.R.C.V.S.,

#### Histology and Physiology.

E. P. Cathcart, M.D., D.Sc.  
W. L. Symes, M.R.C.S.

#### Stable Management, etc.

H. J. Dawes, F.R.C.V.S.,—W. J. Mulvey, R. C. Trigger  
W. S. Mulvey, F.R.C.V.S., F. T. G. Hobday,  
Sir S. Stockman, H. Sumner

#### Morbid Anatomy, Pathology, Bacteriology. **Class C.**

E. J. McWeeney, M.A., M.D., D.P.H., F.R.C.P.I.  
Prof. A. E. Mettam  
H. C. Reeks, F.R.C.V.S.

#### Materia Medica, Pharmacy, Therapeutics, and Toxicology.

H. Begg, F.R.C.V.S.,—J. H. Carter, Dr. J. McI. McCall  
A. Levie, F.R.C.V.S., D.V.S.M., F.R.S.E.  
J. Peddie, F.R.C.V.S., F. T. G. Hobday  
E. C. Winter, F.R.C.V.S., A. E. Mettam

#### Hygiene.

A. Levie, F.R.C.V.S., D.V.S.M., F.R.S.E.  
R. Rutherford  
H. Taylor, F.R.C.V.S.,  
W. Woods, F.R.C.V.S.,—A. W. Mason, W. J. Mulvey

#### Veterinary Medicine and Meat Inspection. **Class D.**

Nicholson Almond, F.R.C.V.S., J. W. Whitecross  
W. H. Bloye, F.R.C.V.S., W. J. Mulvey  
Sidney Villar, F.R.C.V.S., T. S. Price

#### Veterinary Surgery and Obstetrics.

F. L. Gooch, F.R.C.V.S.  
R. J. Hickeys, F.R.C.V.S., W. J. Mulvey  
W. Hunting, F.R.C.V.S.,—A. W. Mason, W. J. Mulvey

#### Fellowship Examination.

#### Veterinary Medicine and Surgery.

J. Macqueen, F.R.C.V.S., W. J. Mulvey

#### Hygiene and Sanitary Science.

W. Hunting, F.R.C.V.S., W. J. Mulvey

#### Pathology and Bacteriology.

J. Malcolm, F.R.C.V.S., W. J. Mulvey

The ballot resulted as follows:—

**Class A. Anatomy.** Blakeway 31, Patrick 24, DeVine 6, Runciman 0.

The PRESIDENT declared Messrs. Blakeway and Patrick elected.

The PRESIDENT declared Messrs. Munro and Somerville, and Messrs. Agar and Bottomley elected in their Sections.



Class B. The ballot resulted as follows:—Bowes 29, Ison 20, DeVine 9, Runciman 1.

The PRESIDENT declared Messrs. Bowes and Ison elected; and also Messrs. Cathcart and Symes, and Messrs. Dawes and Mulvey in their respective sections.

Class C. The PRESIDENT declared Messrs. McWeeney and Reeks elected Examiners in Morbid Anatomy.

In the Materia Medica Section, the ballot resulted as follows:—Peddie 26, Begg 22, Winter 8, Levie 2.

The PRESIDENT declared Messrs. Peddie and Begg elected.

In Hygiene the ballot resulted as follows: Woods 26, Taylor 25, Levie 2.

The PRESIDENT declared Messrs. Woods and Taylor elected.

In Class D the ballots resulted as follows: Bloye 27, Almond 18, Villar 15.

The PRESIDENT declared Messrs. Bloye and Almond elected.

In Veterinary Surgery the ballot resulted as follows: Hunting 29, Hickes 25, Gooch 4.

The PRESIDENT declared Messrs. Hunting and Hickes elected.

#### FELLOWSHIP EXAMINATION.

The PRESIDENT declared Messrs. Macqueen, Hunting, and Malcolm elected as Examiners in their respective subjects.

#### BYE-LAWS SPECIAL COMMITTEE.

Mr. GARNETT: I move "That the Bye-laws Special Committee be re-appointed with instruction to formulate Bye-laws to exempt graduates in science and others from the first professional examination, and the conditions of such exemption, and to report."

I propose that the Council adopt this resolution for several reasons. One of the principal ones is that it is in a great measure carrying out a part, at any rate, of the report of the Departmental Committee on the requirements of the Public Veterinary Services with regard to officers possessing veterinary qualifications. On page 11 of their report the Committee say:—"The representatives of the veterinary colleges who attended before us were of opinion that, if the regulations permitted, it would be quite possible in the case of a student possessing a suitable Science degree to reduce the course to three years by exempting him from attendance at classes in subjects which he had already taken for his degree. This would be of great importance on the present position, and the statement made by Mr. Garnett, the Chairman of the Parliamentary Committee of the R.C.V.S., who attended before us as the representative of that College, that he himself would be agreeable to such exemption, suggests that there is good reason to consider that the Council of the College would give this proposal their favourable consideration. Other members of the Council who appeared before us also expressed their personal concurrence in the suggestion. It was generally agreed that a student possessing a suitable degree would have a knowledge of the pure science subjects which form nearly the whole of the first year's course at a veterinary college far in excess of that required for the veterinary diploma, and we are of opinion that the question of recognising University courses of a shorter duration than that required for a degree as qualifying for exemption is also worthy of the serious consideration of the Royal College."

This might at first sight appear a somewhat revolutionary proposal, but as a matter of fact it is a very old one, for as far back as 1877 the College had bye-laws exempting the first year's study under certain circumstances. At that time Bye-law 47 read:—"A student holding a diploma from any medical examining body recognised by law should be exempt from attendance on the first year's course of lectures and from the examination at the end of that year. A student holding a

foreign or colonial veterinary diploma from any veterinary examining body recognised by the Council of the R.C.V.S. shall be admitted to the first and second years examination without attendance on lectures—provided such course of instruction, foreign or colonial, has not been less than two years." A bye-law somewhat similar to that continued in force until 1895, when our four years' course was first inaugurated. Why the proposition which I now lay before you was done away with there is no reason given, at any rate on the minutes of the Council.

The adoption of the motion will necessitate certain alterations, which might be considered by the Syllabus Committee, because the Junior examination would have of necessity to be taken in the second year in those cases where the exemption pertains. In the same way there would have in those cases to be some variation made in the second year's examination. The students would have to take their osteology and arthrography in the second year, and provision would have to be made for that. I do not think I need go any further into the motion, except to ask you to vote for it. By voting for it, all you will be committing yourselves to is that the question be referred to the Bye-laws Special Committee, who will bring up a set of bye-laws carrying the exemption into effect, and the conditions of such exemption. I move the motion.

Mr. McKINNA: I have much pleasure in seconding the motion.

The resolution was put and carried unanimously.

#### APPOINTMENT OF SCRUTINEERS.

On the motion of Mr. Mason, seconded by Mr. McKinna, it was agreed that the gentlemen who acted as scrutineers in 1912 should be asked to act again, and that the President be empowered to fill any vacancies.

#### ANNUAL DINNER.

Sir JOHN McFADYEAN: I beg to move that there be no annual dinner in connection with the annual meeting in June next.

Major-Gen. THOMSON seconded the motion, which was carried unanimously.

This concluded the business of the Quarterly Meeting of Council.

#### SPECIAL MEETING OF COUNCIL.

Immediately following the quarterly meeting, a special meeting of Council was held. The President (Prof. A. E. Mettam) presided, and the same members were present as at the quarterly meeting.

#### MINUTES.

The minutes of the special meeting held on the 22nd October, 1912, which had been printed and circulated were taken as read and confirmed.

#### ALTERATION OF BYE-LAWS.

Mr. F. W. GARNETT moved the alteration to bye-laws 1 to 111 contained in the printed pamphlet which had been circulated. In doing so he said: This is really a revision more than a general alteration, which practically makes the bye-laws in accordance with our present procedure. If, on working, we find that any alterations are necessary, they can be moved from time to time. The bye-laws were very carefully gone into by the committee, who spent a long time over the matter. I formally move their adoption.

Major-Gen. THOMSON seconded the motion, which was carried unanimously.

#### MOTION BY DR. O. C. BRADLEY.

Dr. BRADLEY: In view of the small sub-committee which has been appointed under the Examination Com-



mittee, I ask your permission to withdraw the motion that stands in my name.

On the motion of Mr. Trigger, seconded by Major-Gen. Thomson, permission was given to withdraw the following motion: "To consider, and, if so decided, to pass the following alteration to Schedule 1: That the examination now reading 'Educational Institute of Scotland: Preliminary Medical Examination,' to be made to read 'Educational Institute of Scotland: Preliminary Examination.'"

It was resolved that the confirmatory meeting should be held on Tuesday, April 22nd, 1913.

A hearty vote of thanks having been accorded, on the motion of Prof. McCall, to the President for his conduct in the Chair, the meeting terminated.

#### PARLIAMENTARY.

##### ANIMALS (ANÆSTHETICS) BILL, 1912.

PRESENTED BY MR. WALTER GUINNESS.

Supported by Dr. Addison, Sir Frederick Banbury, Lord Henry Cavendish-Bentinck, Mr. Butcher, Mr. Courthope, Mr. Greene, Colonel Lockwood, Mr. Mills, Sir Charles Rose and Mr. Snowden.

##### MEMORANDUM.

The Cruelty to Animals Act of 1876 provided for the use of anæsthetics in the case of all experiments calculated to cause pain. There is, however, no restriction of any kind on operations performed in the ordinary course apart from research.

This Bill would make it an offence to perform certain scheduled operations on horses and dogs without the use of an anæsthetic. It would not interfere with the present practice of castrating colts, but would make an anæsthetic compulsory when this operation is performed on horses two years old and upwards.

The schedules deal only with operations on horses and dogs, but the Bill would empower the Board of Agriculture to order the use of anæsthetics for such other operations on domestic animals as might be thought advisable after full inquiry, and after laying a draft order for 30 days before each House of Parliament.

A BILL to make further provision for the Protection of Animals from Cruelty. Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. **Offences.** (1) If any person shall subject or cause or procure, or being the owner permit to be subjected an animal to an operation contrary to the regulations contained in this section, he shall be guilty of an offence under this Act. (2) (a) A horse shall not be subjected to any operation specified in the First Schedule to this Act, and a dog shall not be subjected to any operation specified in the Second Schedule to this Act, unless the animal during the whole of the operation is under the influence of some general anæsthetic of sufficient power to prevent the animal feeling pain.

(b) A horse 2 years old and over shall not be subjected to the operation of castration unless during the whole of the operation he is under the influence of some general anæsthetic of sufficient power to prevent him from feeling pain.

(c) A horse shall not be subjected to any operation specified in the Third Schedule to this Act unless during the whole of the operation it is under the influence of some general anæsthetic or some local anæsthetic, being, in either case, of sufficient power to prevent it feeling pain.

2. **Penalties and appeals.** (1) Any person who is guilty of an offence under this Act shall be liable on summary conviction in respect of the first offence to a fine not exceeding five pounds, and in respect of any second or subsequent offence to a fine not exceeding twenty-five pounds, or alternatively, or in addition thereto, to be imprisoned with or without hard labour for any term not exceeding three months.

(2) An appeal shall lie from any conviction or order by a court of summary jurisdiction under this Act to quarter sessions.

##### 3. Powers of Board of Agriculture and Fisheries.

(1) The Board of Agriculture and Fisheries may, by order made subject to the provisions of this section, add any other operation to the operations specified in any schedule to this Act, and any operation so added shall be deemed to be an operation specified in that schedule, and the Board of Agriculture and Fisheries may also by order made as aforesaid extend any provision of this Act to any domestic animal to which it does not at the time apply, with such modifications or additions as may appear to that Board to be necessary.

(2) The draft of any such Order shall be published for a period of two months before the Order is made, and the Board of Agriculture and Fisheries during that period shall receive and consider any representations made to them with respect to the Order by any persons appearing to them to be interested in the subject of the Order.

(3) The Order, when made, shall forthwith be laid before Parliament, and shall not take effect until it has so lain for thirty days before each House of Parliament, being days upon which that House has sat, and if a resolution is passed by either House before the expiration of such days declaring that the Order be annulled, the Order shall not take effect, but if no such resolution is passed the Order shall take effect on such day after the expiration of the last day on which any such resolution might have been passed as the Board of Agriculture and Fisheries may appoint.

4. **Definitions.** In this Act, except the context otherwise requires, the expression "dog" includes any bitch, sapling, or puppy. "General anæsthetic" shall include Chloral hydrate, and in the case of a dog Morphine.

5. **Short Title.** This Act may be cited as the Animals (Anæsthetics) Act, 1912.

##### SCHEDULES.

**First Schedule.** Radical operation for quittor; Line firing; Operation for stripping the sole; Radical operation for poll evil; Radical operation for fistulous withers.

**Second Schedule.** Castration; Ovariectomy.

**Third Schedule.** Neurectomy or unnering; Enucleation of the eyeball; Trephining.

##### NEW BILL.

Mr. GREENWOOD (Peterborough, Min.) presented a Bill "To make better provision for the prevention of cruelty to animals."

##### Lethal Chamber Wrecked.

A gas explosion occurred on the premises of Messrs. Loft and Hines, veterinary surgeons, Grimsby, on Monday night last. It arose whilst connection was being made between a lethal chamber and a gas main outside. The chamber was blown up, and two employees of the gas company were injured, a man being scorched about the face and a youth receiving a cut on the neck caused by shattered glass.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended April 12	15		15				2	7	46	88	2	41	573
Corresponding week in	1912	18		22			1	9	57	100	3	80	1595
	1911	17		18			6	11			2	40	560
	1910		31	39			4	11				23	159
Total for 15 weeks, 1913	200		217				51	175	1125	2355	110	546	6983
Corresponding period in	1912	361		410			53	123	1657	3787	147	989	11979
	1911	299		349	1	18	59	196			287	615	6859
	1910		465	577			107	286			293	346	2626

† Counties affected, animals attacked: Essex 1, Hertford 2, Kent 1, London 1, York, West Riding 2.  
Board of Agriculture and Fisheries, April 15, 1913.

IRELAND. Week ended April 12	...	...	...	...	...	...	...	...	Outbreaks	10	...	13
Corresponding Week in	1912	...	...	...	...	...	...	...	...	8	10	31
	1911	...	...	...	...	...	...	1	...	4	3	39
	1910	...	...	...	...	...	...	...	1	9	7	191
Total for 15 weeks, 1912	...	...	...	...	...	...	...	...	75	230	40	239
Corresponding period in	1912	...	1	1	...	...	...	...	27	221	74	575
	1911	...	3	3	...	...	...	2	36	213	41	723
	1910	...	4	6	...	...	...	...	26	270	20	496

† These figures include animals slaughtered and found affected on post-mortem examination.  
Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, April 14, 1913.  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

## ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, April 11.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

G. E. Henson to be Lieut. Dated March 13.

April 15.

REGULAR FORCES. ARMY VETERINARY CORPS.

The promotion to the rank of Major of Capt. A. G. Todd is April 2, and not as stated in *The Gazette* of April 8.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. T. Wilson resigns his commission. Dated April 16.

Breeding silver foxes is evidently about as lucrative a business as breeding high-class Scottish shorthorns. There is now a regular silver fox breeding industry in Prince Edward Island, Canada, and the prices which can be obtained are enormous. The Hon. Charles Dalton, who is the pioneer of the industry in Canada, lately sold six pairs of black foxes for shipment to Russia at £20,000, while a litter at six months old which were artificially reared on account of the death of the mother realised £2,400.—N. B. A.

## Personal.

Sir JOHN M'FADYEAN arrived home from India last week looking fit and well. It will be remembered he went away last December to make some research into foot-and-mouth disease.

Mr. A. DUNBAR MORGAN, M.R.C.V.S., D.V.H., Liverpool, has been selected for appointment as Junior Assistant Veterinary Inspector for the City of Sheffield.

Mr. T. B. HAMILTON delivered the last of the series of lectures on "The Care and Treatment of the Horse," under the auspices of the Animals' Protection Association, on Tuesday evening, April 8th, in the Tinplaters' Hall, Watson Street, Glasgow. There was a large attendance. Mr. Hamilton spoke of diseases of the digestive and respiratory systems which affect horses, and also gave some hints about shoeing. Referring to the position of inspectors in connection with cruelty to animals, he advocated that inspectors should have a thorough training in matters connected with the care and treatment of the horse before they were allowed to undertake their duties. He also thought that inspectors should devote themselves to preventing cruelty, and that they should not wait till an animal had been ill-treated, and then prosecute the owner. The lecture was illustrated by numerous lantern pictures of famous Clydesdale and other draught horses.—N. B. A.

## PRESENTATION TO MR. W. G. GILLAM, M.R.C.V.S.

Among the many who are now seeking a home in Canada, few will probably be privileged to retain brighter memories of the West-country than Mr. W. G. Gillam, M.R.C.V.S., who received a characteristic send-off from his friends here on Thursday, 10th inst. When the news of his impending departure was announced his many friends were unanimously of opinion that something more than a formal "Good-bye" was desirable as an expression of their good wishes, and resulted in the collection of a sum, wherewith they were enabled to purchase a handsome writing-case, initialled, and enclose within a cheque for a substantial amount. To receive the gifts, Mr. Gillam was invited to a complimentary dinner at the Plume of Feathers Hotel, and a very jovial company dined together under the genial presidency of the vicar, the Rev. F. M. Etherington, who had the guest of the evening on his right. Others present included Mr. J. Burgess, J.P. (chairman of the Urban District Council), the Rev. A. B. Spittall, and Messrs. W. M. Carder, J. Vere Foster, A. M. Spittall, H. Lailley, J. W. Ridler, T. K. Ridler, A. C. Tyley, G. W. Geekie, W. G. Senior, M.R.C.V.S., H. Westacott, G. Thistle, R. J. Hawker, F. G. Halliday, L. T. Leversha, T. Yandle, B. W. Bagley, V. Smith, B. Slade.

The loyal toasts having been duly honoured, the Chairman read messages from some of those who were prevented from attending. They included Colonel Boles, M.P., who expressed his kind sentiments towards the guest of the evening; Mr. Morland Greig, M.S.H., who, in a lengthy telegram, thanked Mr. Gillam for all that he had done for the stagbonds; Mr. B. Blofeld, who said he had always been impressed by Mr. Gillam's great kindness to animals and his reluctance to inflict any unnecessary suffering upon them. The Chairman said he felt they were doing what all Minehead would wish them to do in giving Mr. Gillam a good send-off with which was associated the memory of good friends. He did not think that any of them, when they left a place and went to take up fresh duties, could desire that anything better could be given to them than the assurance that they left behind them people who would think kindly of them. (Applause). He thought they had all admired very much two things about Mr. Gillam—his conscientiousness and his power of organisation. Mr. Gillam's gift for attending to detail and the working out of things would, he felt sure, be one of the finest assets he could bring to bear in any duty he might be called upon to undertake in the future. One of the best things he had ever done for Minehead was the organisation of the harness-horse parade. He believed that the work Mr. Gillam had done and similar work had had a wonderful effect in making people take a real care of animals. They ought to remember that a great deal of cruelty was not the result of a cruel disposition, but the result of ignorance, indifference, and carelessness. (Applause). In handing to Mr. Gillam the writing-case, inside which was an envelope containing a cheque, the Chairman said he hoped the sentiments which the gifts conveyed would more adequately express to him than any words he (the Chairman) had said what Mr. Gillam's friends in Minehead thought about him. (Applause).

Mr. J. Burgess endorsed the Chairman's remarks, and also paid a tribute to the excellent manner in which Mr. Gillam had discharged his duties when occupying the post of veterinary inspector to the Urban District Council. (Applause).

Mr. Gillam, in acknowledging the gifts, said he was afraid he did not deserve all the kind things said about him, for on looking back over the past, he knew he had made mistakes, but if he had hurt anybody or done any

wrong he hoped they would forgive him. His reminiscences of Minehead were very pleasant ones. Sixteen years ago he came there a comparative stranger, arriving there on a Saturday, but work tumbled in the following Monday, and he could now look back with pleasure upon the encouragement given him by some of his oldest and best clients. (Applause). He had also to thank all the Minehead people for the kind support they had given him and the very friendly attitude adopted towards him, and he only hoped that when his successor had been there for a similar period they would be able to say the same kind things about him. (Hear, hear). In again thanking them for the gifts, he said he should treasure them not only for himself but also as presents to his wife and his son. (Applause). So long as he lived he should always cherish his memories of Minehead.—*The West Somerset Free Press*.

## OBITUARY

LOUIS BARRETT, M.R.C.V.S., Romford, Essex.

London: March, 1886.

Mr. Barrett's death occurred on March 23rd.

EDWIN FAULKNER, M.R.C.V.S., Knott Mill, Manchester.

Graduated, New, Edin: April, 1874.

Mr. Faulkner's death occurred on the 11th inst., suddenly, at his residence, 6 Penrhyn Terrace, Old Trafford, Manchester, at the age of 62 years. Deeply regretted.

The funeral of the late Mr. Edwin Faulkner, of Stretford Road, Old Trafford, a well known veterinary surgeon and a great supporter of the Conservative cause, took place on Monday, April 14th, at Bowdon Parish Church. The body was conveyed on a Darley car drawn by four bays, the coffin being entirely hidden by lovely flowers, followed by carriages conveying the mourners: Messrs. J. M. Faulkner, T. Warrington, Cowley, Campbell, Welch, Coates, Peacock, Stanley Warrington, Holroyd, Clay, Crawford, J. G. Long, Henshall, and Nield.

The Old Trafford Conservative Club was represented by Mr. Albert Smith (Chairman), Mr. Richard Graham (Hon. sec.), Mr. Charles Frost (Hon. Treas.), Mr. J. Roberts, Mr. J. Oakes, Mr. W. Bannister, Mr. A. C. Iddison (Secretary). The Talbot Lodge, 231, of Freemasons was represented by Messrs. J. Roberts, F. E. Roberts, J. H. Roberts, J. Cardwell, A. Burgess, C. H. Counsell, J. Allin, and J. Ashworth, and the Urmoston Chapter of Freemasons by Messrs. G. F. Gordon and J. T. Ripplingham, Messrs. W. Baillie and J. Lambert representing the L. and Y. Horse Department.

At the church the following gentlemen met to pay their last respects: Messrs. T. H. Gibson, J. H. Carter, Alec Lawson, G. H. Stent, C. H. Benton, J. Norbury, S. Warrington, J. Proctor, J. W. Byrom, A. C. Sparkes, A. Munro, B. Collier, J. Smith, W. Noar, J. McKinna, H. Nickson, C. Moss, E. Baker, R. Makinson, J. W. Richardson, J. Bardsley, T. Cox, W. H. Landless, J. Fletcher, H. Holt, J. P. Smith, W. Griffin, J. Hill, B. Buckley, C. J. McKiernan, A. E. Richardson, R. Crawford, H. Quiggin, and H. T. Hughes.

The service, which was fully choral, was conducted by the Rev. J. R. Brunskill, vicar of St. Peter's, Hale.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

Communications for the Editor to be addressed 30 Fulham Road, London, S.W.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1294.

APRIL 26, 1913

VOL. XXV.

## THE TUBERCULOSIS ORDER.

Half our space to-day is devoted to the long discussion between Sir Stewart Stockman and veterinary inspectors upon the Tuberculosis Order. Practitioners, especially if they are inspectors, will find this useful and instructive. Both in his initial exposition and in his subsequent answers to questions Sir Stewart was extremely lucid; and many of the questions—such as those put early in the discussion by Mr. Malcolm—served to clear up points which had previously been difficult. Further information still may be gained from the circular letters which have been sent to local authorities; all inspectors should obtain copies of these.

In considering the Order, it should be remembered that a veterinary surgeon engaged in preventive work may act in one or more of three different capacities. He may serve under local Acts which apply only to his district; under the Public Health Acts which apply to the country generally; or under the Diseases of Animals Act. Care should be taken to avoid confusing these different functions. The Tuberculosis Order is issued under the Diseases of Animals Act, but it is certain that some of its working will come into close touch with Public Health Acts. Some inspectors will soon be working under both the Tuberculosis Order and the Milk and Dairies Act; and it is essential that the duties and powers under the two measures should be kept perfectly distinct.

It should be recognised also that this Order is only a beginning. It is the thin end of the wedge—authorising the seizure and destruction of tuberculous animals, but only to a limited extent. Only animals suffering from tuberculosis of the udder, or from tuberculosis with emaciation, or giving tuberculous milk, come within its province as yet.

Full use should be made of its provisions as far as they go—for instance, when one case has been reported to an inspector, he ought to extend his examination from that animal to all others in the byre. But to strain the provisions beyond their present purpose would only arouse public opposition to the Order; while, on the other hand, a steady and judicious administration for the next few years will educate public opinion for a stronger Order in the future.

One feature of the Order is that it will make extensive use of diagnostic methods which many veterinary surgeons have not yet practised. Considering the limited application of the measure, it is not likely that there will be much tuberculin testing done under it—and, indeed, it would be better not to use tuberculin if it can be avoided.

But there is certain to be a great deal of centrifugalisation of milk, and microscopical examination of milk and discharges to be done under the Order, and many inspectors are quite unaccustomed to this work. All they require to fit themselves for it is the addition of a little technical training to their initial knowledge; and this will be easy. Private instruction is already offered at Runcorn under Prof. Annett; and we may add that arrangements are also being made for classes for inspectors, of about a fortnight's duration, to be devoted entirely to tuberculosis and its detection in milk and by the microscope, at the Camden Town School. This short time will amply suffice for the purpose. Then, if his local authority will allow it, he can do very nearly all his diagnostic work himself, without the delay of sending material to laboratories; and it is quite clear that in so doing he will have the approval of the Board of Agriculture.

The discussion upon diagnosis was full of useful hints. Mr. Brittlebank's ingenious method of withdrawing milk for centrifugalisation, for instance, should be remembered by every inspector.

Many details in the working of the Order are left to be arranged by the local authorities, and the inspector must shape their course as best he can. If he is, as he should be, doing practically all the diagnostic routine under the Order himself, a little tact will probably soon establish him as the local authority's chief guide. Tact—and something more—will also be necessary in dealing with owners. Some parts of the Order are distinctly complex, and some owners will not easily comprehend them. The inspector should help the owner to understand his own rights under the Order. That, in Sir Stewart Stockman's words, "would be only honest," and it would be politic as well. Nothing would be more likely to bring the Order into disrepute than for farmers to conceive themselves tricked by inspectors, and that might easily be allowed to happen.

Inspectors may find some difficulty at first in accustoming themselves to the new duties, in arranging details with local authorities, and in dealing with some owners. The first thing to do is to thoroughly comprehend the meaning of the Order, and that can be done by a careful study of the discussion under notice and the Board's circular letters. Certainly, also, every inspector should prepare to do all the diagnostic routine himself.

The trouble will be well worth taking, for our profession has never had so wide a chance of proving its public utility before.



## PARAPLEGIA.

By W. R. DAVIS, M.R.C.V.S., Enfield.

On Sunday morning, April 13th, I was called to a cart mare, six years old, suffering from partial paralysis of the hind limbs. On the previous Friday, a very cold stormy day with snow and rain, the mare had worked very hard, harrowing, with two other horses on very rough ground; on the Saturday she was lightly worked in a cart. When let out to water on Sunday morning she was noticed to be unsteady in her gait, and I was sent for. I found the mare, a valuable animal, in a box, eating a little chaff and oats. When a halter was put on, and an attempt made to move her round the box, the quarters dropped, she swayed and nearly went down.

I found pulse, respirations and temperature normal. She had passed faeces and urine. I gave an aperient drench, and the patient had to be propped against the wall while it was being administered. A few hours later she went down and lay on her side unable to rise, but remained quiet and nibbled a little hay. In the evening she had an enema and a stimulant drench.

On Monday morning she was sweating, and had been pawing a good deal with the fore feet and showing signs of uneasiness, but not of great pain. She had passed neither urine nor faeces. With a catheter I drew off a quantity of rather dark and oily looking urine, and removed some hard faeces from deep in the rectum and gave a copious enema.

In the afternoon, at the earnest request of the owner, the mare was lifted with slings, but the hind limbs could bear no weight whatever, and she had to be put down again. The pulse was now much accelerated, the artery at the jaw stood out full and tense, the breathing was rapid, and the mare was evidently in a good deal of pain. I had her well propped up with straw as she lay on her side. Another aperient drink was given, and a subcutaneous injection of morphia, and the back rubbed with belladonna liniment. During the night the mare died. I regret that no post-mortem was made.

Suburban practitioners are badly placed for getting post mortems. Owners do not care to have them made on their premises, and one has not always time to make a journey into London to Harrison and Barber's, where the carcases usually go. What caused the paralysis?

The onset was very sudden, as the mare was seen at 3 a.m. on Sunday and was then all right, yet when let out to water at seven o'clock she staggered. It is curious that whereas most of the muscles in the gluteal region were paralysed the tail was drawn up and to the off side, so that some muscles must have been in a state of contraction.

From the way in which the tail was carried the owner thought it a case of lockjaw, and said so when he telephoned for me. There was no paralysis of the sphincter ani or of the bladder. The sensibility of the skin of the hind limbs was not abolished.

Paraplegia suddenly arising and not due to traumas is for the most part associated with infections or intoxications. In dogs suffering from constipation, one may frequently observe paresis, or even complete paralysis of a temporary nature, probably arising from toxins of coli bacillus absorbed from the intestines; but I do not know that this is seen in horses, and in any case the mare was not greatly constipated, the hardened condition of some faeces found in the rectum I attributed to loss of nerve power in the intestine. Hæmorrhage into the cord would produce the symptoms, and it is found sometimes in very severe cases of fatal azoturia with complete paralysis, but here neither the condition of the urine nor that of the muscles indicated hæmoglobinuria.

Perhaps some of your readers would suggest the cause of the paraplegia and the cause of death. The owner blames the intense cold of the Friday. I may say that about six weeks ago this mare picked up a nail and had suppuration of the plantar cushion for a fortnight, but that cannot have had anything to do with the attack.

## ACCLIMATISATION OF THE HORSE.

Having had occasion, for purposes of recreation during the past two years, to be concerned with the importation of four or five British thoroughbred horses to this country, I have derived much interest from observation of the necessary process of acclimatization. It has occurred to me that some notes of these observations may be of interest, both from a veterinary and military standpoint.

For obscure reasons, with regard to which one can only theorise, the horse appears to require a longer period of acclimatization than the other domesticated animals or man; not with reference to immunity from local diseases, but for general purposes of utility. Four or five horses do not, of course, furnish sufficient data upon which to generalize, but I have been at pains to compare my observations with those of several trainers and importers of thoroughbred stock throughout South Africa, and have received entire confirmation of my results. Observations upon racehorses would, one might infer, offer better material for accuracy than that afforded by more general utility classes of animals, for the reason that the work one requires of them abroad is precisely the same as that in Britain.

The test of complete acclimatization may be taken as being that moment when the horse becomes capable of as excellent work as before leaving his native soil—when his powers of speed and endurance, *cæteris paribus*, have arrived at the same maximum pitch as before exportation.

In time of war, on account of the many other factors involved, such as underfeeding, exposure, overwork, etc., estimation of the part played by lack of acclimatization becomes almost impossible.

It can be fairly stated that the period of acclimatization judged by the standard of the above-mentioned test for horses imported from Britain to South Africa is from six to twelve months; some



authorities put it higher. The following notes upon horses which have been in my hands from first arrival in South Africa will furnish some illustrations:

*Case 1.* A two-year-old colt, by Flor de Cuba out of Sweet Marion. This colt left England just after having run an excellent trial, and arrived at Bloemfontein in splendid condition, June, 1911. Work given, walking exercise. Food, about 6lbs. of oats and 6lbs. bran, with the usual amount of oat hay and lucerne to begin with; the proportion of oats being carefully raised till, at two months in country, he was receiving full training rations.

The walking exercise consisted of leading for an hour daily to begin with. After six weeks he carried 8 stone 7lbs. for about an hour daily. It was found that this was the most work that could be given for three months, without loss of condition, brushing, and general evidence of weakness.

About December, 1911, he ran his first race, a five furlong race, in bad company, and ran last—tailed off. In April, 1912, he ran fourth in a five furlong race, also in moderate company, carrying 7st. 4lbs. In May he won a maiden plate by a neck carrying 8st. 12lbs., or therabouts, five furlongs in very poor company. Weight for age. Later in the same month he ran third in an open race, in fair company, carrying 7st. 4lbs. He then had a three months rest from racing, but continued in full training. In September and October he won four races off the reel in fair company. In December, 1912, he ran second in a big field at Johannesburg in good company.

From consideration of these results it is evident that this horse did not become acclimatised till September, 1912, i.e., fourteen months after landing.

*Case 2.* A mare, three years, by Lord Edward II. out of Simple Maiden. Arrived June, 1911. History as in Case 1. Won her first race in May, 1912, at weight for age in a maiden plate, having run unplaced in similar company for some months previously. Thereafter she won, or was placed in, several races before being sent to stud.

*Case 3.* A 14-1 mare, six years, by Mauvezin out of Carthage II. Arrived November, 1911. With this animal, which arrived in excellent condition, one had the same history of commencing weakness. This falling-off begins about a month after landing, and forms a fairly definite curve.



This mare became acclimatised much more rapidly than Cases 1 or 2, possibly because of her more advanced age and "set" condition. She won her first race in May, 1912, but did not display first class form till September. The race she won in May was a six furlong race, in moderate pony company. In a trial in March she was beaten by a most moderate pony in a canter, over five furlongs. She improved so much subsequently that in September, 1912, weight could not bring the two together.

It is unnecessary to multiply instances, as these three cases are typical of imported thoroughbreds,

a matter of common knowledge in South African racing circles. It is also a matter of common knowledge that if a horse arrives at the coast in good condition, he has been known to win, if run within a month of landing before the curve of acclimatisation began to dip. The favourite reason advanced for the long period of acclimatisation is that most popular South African excuse "altitude." But if it were altitude why should animals at Capetown, Durban, and places on the sea level require practically the same time to acclimatise? It cannot be feeding, because no amount of good oats and hay, imported or otherwise, affect the period of acclimatisation.

It is not claimed, of course, that the narration of the above facts is particularly interesting or useful, being, as said before, merely matters of common knowledge in South Africa. But the reflections arising therefrom may be profitable. What applies to acclimatisation for South Africa must, in varying degrees, apply to acclimatisation for every other country.

In these days, when preparedness for war has really received thorough and practical consideration, no item of useful information can be ignored. One might suggest the compilation of tables showing the period of acclimatisation necessary for English horses for all over-sea countries. Such information could be best obtained from trainers of racehorses. English trainers and English racehorses may be found in every quarter of the globe and in nearly every subdivision of it. The matter has its educational value also. In civil practice the ability to be able to impart such information readily to a client might be of advantage, apart from its academic interest. I mean to a client about to export racing stock and anxious to know how soon the horses might reasonably be expected to win.

From a military point of view the information would be useful in estimating campaign mortality, statistics, and in deducing factors of causation after a campaign.

It is probable that conclusions drawn only from observations upon racehorses may be in part erroneous. The thoroughbred may take longer to acclimatise than the half-bred, but it seems reasonable to suppose that the difference will be one of degree only.

From fair criticism of the foregoing facts it would appear that at least 50 per cent. of imported European horses asked to do severe work during the first six months of a campaign in South Africa must fail, no matter how well fed.

It strikes one as curious that running men from England and Australia do not "go off" in form like racehorses when competing in South Africa. Men apparently do not require anything like the same period of acclimatisation, or at any rate to nothing like the extent of horses.

There is another point, upon which consideration of this subject of acclimatisation has important bearing, which has been suggested to me by a statement (in the Veterinary History of the South African War, now appearing with *The Veterinary Record*) that there are still those who are sceptical as to the economical purpose served by veterinary



hospitals in war. While horses, disabled soon after landing in an overseas country, are being treated for wounds or disease, they are becoming acclimatised, and thus acquiring a potential value 50 per cent. greater than that of an otherwise sound newly landed animal.

Yet one other point, and this of commercial interest. Are the stock begotten by an imported sire while he is still unacclimatised as good as those born of dams served by him after he is complete and fit in this respect? I have been unable to obtain information as to this, but it seems reasonable to suppose that the procreative powers would share the general inability.

WAKEFIELD RAINY, Captain A.V.C.  
Bloemfontein, South Africa, March 29.

*Several communications are unavoidably held over.*

#### THE CENTRAL VETERINARY SOCIETY.

An ordinary meeting was held in the Council Chamber, R.C.V.S., 10, Red Lion Square, on Thursday, April 3rd, Mr. J. W. McIntosh, President, in the chair. The following Fellows signed the attendance book: Messrs. E. Lionel Stroud, R. J. Foreman, G. H. Livesey, J. Willett, Prof. J. Macqueen, T. S. Price, W. Perryman, Prof. G. H. Wooldridge, F. G. Samson, W. S. Mulvey, R. Eaglesham, L. Auchterlonie, G. Gordon, P. S. Howard, A. Payne, N. Almond, W. R. Davis, S. L. Slocock, jun., J. F. Macdonald, F. O. Parsons, R. Bryden, S. H. Slocock, W. R. Clarke, H. D. Jones, R. F. Wall, Wm. Hunting, A. Neish, Wm. Willis, D. H. Wood, and Hugh A. MacCormack, Hon. Sec.

The minutes of the last meeting, having been published, were approved and signed, on the proposition of Mr. Price, seconded by Mr. Mulvey.

*Correspondence.*—The Hon. SECRETARY (Mr. MacCormack) announced that letters had been received from Prof. Reynolds and Mr. Shipley, regretting their inability to be present.

A letter from Mrs. Aveston, the late Mr. Rogerson's daughter, acknowledging receipt and thanking the Society for the letter of condolence.

The Society had also received from Bihar, volumes 1 and 2 of the Memoirs of the Department of Agriculture in India.

#### SPECIMENS.

Mr. FOREMAN showed a tumour from a dead mare. It was a very good cob, aet. twelve years, though it did not look its age. Nothing had been noticed wrong with her for years. She had been out on a butcher's round, and was placed in the stable at 2.30. She ate her food and drank water, and seemed to be all right. When, at 3.30, the lad came to whip her down, he noticed she was "shivery" and occasionally struck at her belly with her hind feet. He put her in and gave her a small feed, of which she ate only a small quantity. He went in at 6 o'clock to feed her for the night, and she started eating the fresh food, but soon ceased, and broke into a cold sweat. The owner was told, and he telephoned for him (Mr. Foreman) to see it, as he thought the mare was seedy. When he arrived at 7 o'clock, he found she had a nasty pulse, which he did not count, it was of bad tone, she had a glassy eye, and a haggard look, and every now and again she moaned, as horses did when they had stomach trouble. Owing to that and the cold patchy sweats, he diagnosed it as stomach trouble. Though uneasy, she did not seem

anxious to lie down. He gave her half a grain of arsenic hypodermically on the off chance, but she thereafter became somewhat worse. She perspired very freely, and strained three or four times in the first half hour. There was more moaning. About 8 o'clock he gave her a dose of morphia hypodermically, but instead of that making her quiet, she became violent. One particular symptom was that she would stand quiet for a time, and then give a jump forward, like a lamb frolicking. Mr. Foreman arranged with owner he (Mr. Foreman) would pith her, but when he went in to the box about 10 o'clock, he found she was dead. The knackers telephoned to say that death was due to a tumour, the size of a football. He told them he would see it in the morning, and then the bowels were out of the carcass, and it was not a nice subject for a post-mortem. He could not see anything to account for such a sudden death. The tumour—now shown—was in the third part of the colon, and attached to the longitudinal muscular fibres. He suggested it should be opened to ascertain its nature. It weighed 12 lbs., and was 9 inches in diameter. The duration of the illness had been only four hours. The tumour on section appeared to be a mass of clotted blood of a firm consistency, quite difficult to separate from the capsula. On examination, it was determined that it had been attached to the lumbar muscles, as there was muscular tissue remaining on one side, and also to the colon, and it was thought it might be some blood vessel enormously distended.

Mr. FOREMAN, answering questions, said no rectal examination was made, as the death came sooner than he expected and he did not usually explore for the first hour or so. The symptoms seemed similar to those of ruptured stomach; especially the moaning and the haggard expression.

Mr. W. R. DAVIS showed a cystic calculus which he had removed from a tiny Pekingese bitch, a little over a year ago. She was brought to him showing the usual symptoms of inconvenience of urine and emaciation. He could distinctly feel the bladder disturbed with the calculus through the abdominal wall, and could push it from one side to the other. The owner would not have her operated on.

Later, as she was much worse, he asked that the operation should be done. He (Mr. Davis) gave her half a grain of morphia subcutaneously which produced complete narcosis. The instruments and silk were boiled and placed in oil. He had read about the tolerance of the peritoneum for oil and thought that he would try it. After clipping some of the rough hair off the abdominal wall he soaped it well, and removed the lather, and then soaked the abdomen with linseed oil and made the usual incision in front of the pubis. Having stopped whatever bleeding there was with adrenalin, putting also some oil on the lips of the wound, the peritoneum was punctured, and with the oiled finger he got up the bladder and turned it backwards on to a pad of boiled wool. He then saw that the bladder was distended with the calculus, and was very vascular, having dilated veins all over it. He made an incision through the superior face of the bladder where it was least vascular and got out the calculus. Having touched the edges of the bladder wound with adrenalin to stop the bleeding, and soaked them with oil, they were brought together with close silk sutures. After applying oil to the abdominal wound this was also stitched with silk. He never saw an animal make a better recovery. The calculus was pretty large (five drachms) considering the size of the patient. The owner proposed sending the bitch to the stud next week—four weeks after the operation.

Prof. WOOLDRIDGE desired to thank Mr. Davis for his remarks on his case. The article to which that gentle-



man referred was one which was translated in *The Veterinary Journal*, and the oil referred to was paraffinum liquidum; its consistency was midway between that of vaseline and illuminating paraffin. It was specially recommended for abdominal surgery. He hoped Mr. Davis would not find in this case the frequent sequel of small calculi afterwards. He did not know whether Pekingese dogs were especially susceptible to calculi, but lately he had had his attention drawn to that breed more than to any other.

Mr. H. GRAY said he felt much interested in the subject. His experience was that such calculi were always larger in the bitch. He had seen some in the female, larger than a turkey egg, yet causing no symptoms during life, and its presence only discovered post mortem. He had also seen in the bitch, calculi the size of a marble, blocking up the urethra. Otherwise he had not experienced much trouble in the bitch beyond cystitis.

#### REPORT OF COUNCIL *re* FEES AND ALLOWANCES PAYABLE TO VETERINARY INSPECTORS.

The PRESIDENT. In accordance with the remit from the last meeting, the Council had gone over this matter carefully and in detail, and had practically agreed to submit it in the form of its original form; *i.e.*, it made no alterations. Each Fellow had had a copy sent him. He asked for any expressions before it was put to the meeting.

Mr. PRICE thought the meeting should pass it in its present form. If all these fees were obtained, there would be a good deal of satisfaction. He proposed that the Council's view of the matter be accepted.

Mr. PAYNE said he saw no mention of fees payable to inspectors of dairy cattle.

Mr. W. S. MULVEY said that there was nothing about attendance at prosecution cases under the Contagious Diseases (Animals) Act in the proposed scheme. At present the payment was a guinea a day, so that one might be in Court four hours and only receive half-a-guinea; he was speaking of cases of mange, swine fever, etc. It might be necessary for the veterinary surgeon to go across country twenty miles or so, yet no travelling expenses were allowed. His own district measured 22 miles by 17, yet he received no travelling expenses. In swine fever cases, the Local Authority took out the summons and paid for the attendance of the Inspector who had investigated the case of the disease. In a particular swine fever prosecution, a certain Inspector came from London to their Court and gave evidence. It was considered that he had been there half a day, and paid him only half-a-guinea; he had no travelling expenses. The Inspector might have to appear at Court twenty miles from his own home. He thought the meeting should suggest an addition to the schedule, providing for some arrangement to be made with regard to payment of fees to Veterinary Inspectors when attending Court in connection with cases of prosecution; then perhaps the National Association would take some notice.

The PRESIDENT pointed out that travelling expenses were mentioned in the document, in the second clause.

Mr. LIVESLEY pointed out that they had only to express approval or disapproval of this scheme. If any member felt he had any personal grievance, he should bring it before the Committee of the National Association, not before this Council.

Prof. WOOLDRIDGE expressed a difference of opinion from that of Mr. Livesley as to the method of procedure; he thought these local differences should be thrashed out by the local people, not by the National Association. The National could not attempt to arrange the matter, except on a broad basis to begin with. Local authorities would always be prepared to meet a deputation of their own Inspectors, but they would refuse to negotiate with

an outside body. He sympathised with Mr. Mulvey in the omission to which he had referred. If that question of omission were referred to the National, it could be inserted as a sort of general lead to the different districts. The scheme from the National was a basis for negotiation on the part of the Inspectors under particular Local Authorities.

Prof. MACQUEEN said he thought notice should be taken of the suggestion made by Mr. Mulvey; it was an item which should be added to the general programme.

Mr. P. S. HOWARD moved that a suggestion be made to the National Veterinary Association to include in their scale of fees an item relating to attendance at Court to give expert evidence in prosecutions under the Contagious Diseases (Animals) Act.

Mr. MULVEY seconded.

Mr. PAYNE proposed, and Mr. Slocock seconded, that a scale of fees be arranged for, for veterinary inspection of dairy cattle.

Both resolutions were carried.

#### Prof. WOODRUFFE AN HONORARY ASSOCIATE.

The PRESIDENT announced that at the Council meeting it was proposed by Mr. Price, seconded by Mr. Foreman, that Prof. Woodruffe be elected an Honorary Associate of the Society. Prof. Woodruffe was a valuable member of that Society for many years, and his contributions were always well expressed and valuable. [Carried].

#### TUBERCULOSIS IN THE DOG, CAT, AND BIRD.

By HENRY GRAY, M.R.C.V.S.

Tuberculosis in the dog, cat, and bird, as a subject for discussion, has never so far as I am aware been brought before this or any other veterinary society in the United Kingdom. Therefore I believe I need not offer you any apology for submitting to your notice this evening a few scattered remarks on this subject.

Although tuberculosis in the smaller domestic and semi-domesticated animals has been recognised as far back as 1817 by Delabere Pritchett Blaine, in 1842 by Dr. Paul Rayer, the celebrated French comparative pathologist, and since by many others, it was not actually demonstrated until the late Dr. Koch published in 1882-1884 his researches on the true cause of tuberculosis in general and his method of detecting the causal organism. Up to that period many cases of undoubted tuberculosis were mistaken for malignant new growths, such as sarcomata, carcinomata, lymphosarcomata, lymphadenomata, parasitic (animal and vegetable) nodular diseases, etc.

The credit of being the first to demonstrate the transmission of tubercle from the dog to dog, and from man to dog is due to Brusasco, who in 1882 made inoculation experiments on the question. Since then it has been firmly established by the clinical observations, post-mortem examinations, and bacteriological investigations undertaken by such authorities as Bang, Cadiot, Fröhner, Jensen, Nocard, and Müller among numerous others.

As far back as 1839 Malin recorded a case of tuberculosis in the dog which he considered contracted the disease from his consumptive owner. In the Koch era of the history of tuberculosis Brusasco was the first to draw attention to the fact that dogs of phthisical persons frequently contracted the disease, and the researches of Cadiot, Petit, and Lannelongue and others have put the question beyond a doubt.

Experimentally the dog is very susceptible to human tubercle, somewhat refractory to bovine tubercle, and quite resistant to avian tubercle. The cat is very susceptible to bovine tubercle, and somewhat resistant to human tubercle.



Mr. G. L. Y. Ingram, M.R.C.V.S., late of the Brown Institution, has kindly informed me that of the numerous cases he has encountered of feline tuberculosis, including among others the ocular cases, he has always found them to be due to a bacillus of the bovine type. Some of his earlier cases are reported in *The Veterinary News*, December 10th, 1910, and May 13th, 1911.

The late Professor Axe many years ago fed cats on milk containing tubercle bacilli and had no difficulty in transmitting the disease to them.

The bird as a genus is capable of contracting all three types of tubercle—the parrot in particular; but some species are resistant to the mammalian types.

So far as my own experience is concerned I consider that bacteriological and experimental evidence agrees with clinical observation.

Tuberculosis in the dog, cat, and bird (excluding the domestic poultry and semi-domesticated game birds) is considered by the bulk of the profession to be of somewhat rare occurrence in this country compared with some continental cities, in which it has been demonstrated to be quite common. To put before you the generally accepted aspect of its frequency in our dogs let me quote from *The Illustrated Kennel News*, Nov. 3, 1911, the following:

*"Dogs and the Daily Press."*

"Before now we have considered it our duty to admonish on the practice of some 'Dailies' of what might be called 'dabbling in dogs.' As long as the ignorance displayed on those occasions is limited to absurd statements about various breeds and similar subjects it only excites ridicule, but when a paper frightens the public with a doggy bogie it becomes downright mischievous, because breeding and showing dogs is nowadays not only an interesting hobby, but it gives good employment to thousands of men and women in various industries.

One of the smatterers about dogs stated recently that they are very often suffering from tuberculosis, and that they transmit the disease to human beings. In the interest of the doggy public we have consulted Mr. A. J. Sewell, M.R.C.V.S., who, as is well known, has made the ailments of dogs a study of his life, and we are able to state on his authority that in a practice of 35 years he has only come across 20 cases of tuberculosis in dogs, and he has never known an instance of their communicating the disease to human beings. He particularly mentioned the case of a lady's pet dog, who had been suffering from tuberculosis for 18 months, and although he always slept on his mistress's bed she never caught it. This happened five years ago, and the lady is still in perfect health."

If the authorship of this statement should be correct, and I have no reason to doubt it, it shows Mr. Sewell's conception of the frequency of canine tuberculosis.

My own experience differs absolutely from that of Mr. Sewell. I have seen 20 or more cases a year in the dog, confirmed by the tuberculin test, post-mortem examination, and bacteriological or histological investigation. Although I only conclude as to its frequency from absolute evidence or rather proof, I suspect double this number, of which I do not get a chance to test or even of making a post-mortem examination, as a great number of owners do not like to know the worst and refuse to one the use of the confirmatory diagnostic means.

Tuberculosis in the cat, dog, and bird is not rare; but it is generally not recognised until the disease is far advanced or a post-mortem examination is made. Even then it is not rarely overlooked, because the usual characters of tuberculosis in other animals are not generally present in canine or feline tubercle. Caseation is not a feature, and very often it is difficult to

detect the bacilli, because they are rare even in lesions showing the characteristic histological characters and in animals having reacted to the tuberculin test. I may here mention that Perroncito more than 20 years ago pointed this out as often occurring in the pig.

Early recognition of the disease is important, not only from a veterinary point of view, but also from a public health standpoint. I cannot go so far as to say absolutely that the smaller animals transmit their disease to the human disease, but it is reasonable to suppose that if they can contract it from man they are quite capable of re-transmitting it to the human subject. One must not conclude that because a person has all the appearances of good health that person is free from disease, or is immune. It is only the relatively few who are really affected who break down in general health and manifest unmistakable evidence of its inroads. Again, clinical manifestations of human tuberculosis are mostly the advanced expressions of a remote infection, which may for years remain latent in the system. Veterinary experience has settled this, and human pathology has confirmed it. So much then for Mr. Sewell's expression of opinion.

If one wait to find a tuberculous dog having all the so-called pronounced classical manifestations of the malady one will overlook numerous cases and mistake them for some other disease. Of course wisdom is only the outcome of experience, and before that is obtained many mistakes have to be made until one becomes suspicious and begins to suspect the disease in many obscure conditions.

Tuberculosis may manifest itself in the form of glandular enlargements, especially in the vicinity of the throat; chronic ulceration of the skin with consequent fistulae; arthritis, especially of the coxo-femoral and tibio-femoral joints; laryngitis, asthma, bronchitis, pneumonia, pleurisy, pericarditis, hepatitis, nephritis, hydrothorax, hydrops pericardii, ascites, chronic enteritis, gastritis, ulcerative lesions of the bowels, chronic cerebro-spinal or spinal nervous disorder, eye disease, etc. These conditions of tubercular origin are usually chronic and persistent, getting rather worse than better. A chronic occasional cough is rather suspicious, especially if the animal is somewhat unthrifty and suddenly develops an obscure nervous disease, or the serous cavities become filled with effusion.

Tuberculosis of the mesenteric glands and of the kidney in the cat is common. In dogs and cats cerebral tuberculosis evidenced by inequality of the degree of contraction of the pupil, torto-collis, hemiplegia, loss of equilibrium, going in a circle, loss of power, dementia, amaurotic pupils with or without choroiditis and the consequent detachment of the retina, or rigidity the spine, etc., is not infrequent.

Miliary tuberculosis of the lung in both species is usually secondary to skin, mesenteric, hepatic or kidney lesions. Effusion into all of the large serous sacs is not uncommon. At times it is present in all, at other times in two, and still other times in only one sac. Total or partial pleural symphysis, pericardio-pleural symphysis or pericardial symphysis is not rare. In the partial pleural symphysis an isolated sac, included between two bands of adhesion, containing effusion may be found. Miliary tuberculosis in both species is often followed by effusion in one or both pleural sacs. Caseous pneumonia involving a lobe, especially the anterior lobe or disseminated in large patches is far from rare. In old standing cases, vomicae are far from rare, especially in the cat. The costal pleural membrane like the serous membrane lining the cranial cavity may be the seat of *perlsucht*. This is not common. Very often the bronchial lymphatics alone or in conjunction with the mediastinal glands become enormously enlarged and often cystic, containing a quantity of more or less

clear liquid. I have seen them the size of a cocoa-nut, and causing during life very little evidence of their presence beyond an occasional cough and a slight unthriftiness.

In the *bird*, tuberculosis is often manifested by warty growths on the eyelids, horny growths on the beak and vicinity, nodular growths on the wings and legs and chronic swellings in the feet. In this external form the bird may live for years, providing the disease does not become generalised.

The clinical picture is extensive but as tuberculosis may attack any organ or tissue or become generalised it is useless to labour the point.

**Diagnosis.**—One generally has to suspect the disease before one can diagnose it.

Emaciation may be absent or very slight, even in advanced cases of generalised tuberculosis. Wasting of the muscles of the temporal fossæ leaving the sagittal crest prominent, wasting of the muscles of the spine, a pot belly, a short hacking or muffled cough, especially if succeeded by an effusion into a serous sac, an unaccountable blindness, torto-collis, rigidity of spine, chronic ulceration of the skin, leaving fistulae, followed by pneumonia or pleurisy, enlargement of a kidney, a mesenteric gland, or warty growths in the larynx should create a reasonable suspicion in the mind of the practitioner that he was in presence of a tubercular lesion.

By the hypodermic use of tuberculin, that suspicion should be confirmed or removed. The injection should be made in the morning and the temperature taken every hour after it. The temperature begins to rise during the second hour and continues elevated for twelve or twenty-four hours longer when it begins to return to the normal. Unless the temperature is taken every hour one is liable to overlook in certain cases a reaction. The maximum temperature is usually obtained by the fourth or fifth hour.

The other reactional symptoms present in many cases are sickness, dulness, dull open coat, a muffled cough as if the bronchial tubes were filled with mucus, an opalescent or mucopurulent rosy discharge from the conjunctival sacs, and also from the nostrils.

In some instances where the larynx is involved in the tubercular process, the mucous membrane of the soft palate, fauces, and larynx becomes so swollen and oedematous, that one cannot make out the outline of the organs.

The epidermic, intradermic, and ophthalmic methods cannot be relied on and therefore should be discarded for the surer subcutaneous method. In my hands all the positive reactions have not belied themselves and those negative cases in which I have had the chance of having a post-mortem examination have proved themselves not to be tuberculous.

Tubercle has been mistaken for that old humbug "worms"; also for the chronic broncho-pneumonia following distemper, simple abscess, sprain of joints, tumours, injuries to stifle, etc. In the bird the nodular or necrotic lesions often found in aspergillosis, bird-fever, coccidiosis, avian cholera, etc., are too frequently mistaken for tubercle.

The conclusions I have come to are that.

(1). Tuberculosis in the dog, cat, and parrot are frequently of human origin;

(2). That it is reasonable to suppose that in consequence of these animals contracting tuberculosis from man, they are liable to transmit the disease back to man;

(3). Therefore tuberculosis in the dog, cat and bird should be controlled by the State and included in the Diseases of Animals Act.

I believe it is really more dangerous to human health than bovine tuberculosis or equine glanders, because owners not suspecting the danger a consumptive dog,

cat, or parrot is likely to be, kiss and cuddle the animal which frequently reciprocates the affection by licking the owner's tongue or mouth.

#### DISCUSSION.

Mr. W. R. DAVIS said he had seen many cases of tuberculosis in the dog and cat, and he agreed with Mr. Gray that it was more common than most people supposed, and in his own experience it was more common in cats than owners of cats believed. Mr. Gray did not mention one organ in which tubercle bacilli were found sometimes in cats, namely, the kidney. The disease sometimes arose primarily in that organ. He had now a specimen from a kidney stained for tubercle bacilli and it showed myriads of them. A human pathologist to whom he showed it said he believed it was rare for the disease to occur primarily in the kidney. He had never used tuberculin for either the cat or the dog, but Mr. Gray had given valuable information which he, the speaker, would take advantage of in his next case. Tuberculosis in cattle was extremely common. He knew of yards where the owners had to give up breeding poultry for two or three years on account of the disease having attacked the abdominal organs of the bird. A short time ago he was asked to look at a Persian cat which belonged to a lady. The cat seemed to be in fairly good condition, but it had a cough. On that account the lady had been nursing it and allowing it to lie on her bed. He persuaded her to allow him to take it away with him so that he might examine it carefully. He did so, but it rapidly developed pneumonia and died. To his astonishment, its lungs were riddled with tubercles (the cause of death was tubercular pneumonia), and he found the bacilli easily. So that this woman, had been nursing this consumptive cat and giving it every opportunity to convey the disease to herself. He agreed with Mr. Gray that there was far more danger to human beings from dogs or cats affected with tubercle than obtained in the case of cattle or any other animal. In his experience the bacilli were much more readily demonstrated in tubercular lesions of the dog and cat than in those of cattle. He thanked Mr. Gray for a valuable contribution to our knowledge of the subject.

Prof. WOOLDRIDGE thanked Mr. Gray for his paper and said the subject of tuberculosis of the smaller animals had not been dealt with in anything like the same degree from the clinical aspect as in the larger animals, and his experience agreed with the author's in that it was very much more common than was generally thought. But if it was as common as Mr. Gray said it was, then it was more common than even he had realised. His view as to its incidence was about midway between that of Mr. Gray and that of Mr. Sewell. With regard to the occurrence of the disease in the dog, in his experience the vast majority of cases of ascites were due to tuberculosis. With regard to the disease in the lungs, he had rarely met with phthisical cavities in the dog; but in the cat he had frequently met with such cavities. Hence there was more likely to be free distribution of tubercle bacilli from the cat than from the dog. In the dog, tuberculosis of the abdomen was more common than thoracic disease. In the diagnosis of tuberculosis in the dog, tuberculin was of very great assistance. He had used it, but not to the same degree as Mr. Gray had. He asked whether the author would state what dose he used in order to arrive at a decision. Naturally considering the enormous differences in the weights of various dogs, the dosage must vary considerably. Though tuberculin was not of great toxicity, it was unnecessary to give a large dose of it to a small dog. With regard to tuberculosis in parrots, he would like more evidence than had been brought forward to-night before he accepted the statement that tuberculosis in parrots was usually of human origin. It seemed a sweeping statement to make. He



admitted that parrots were brought into more frequent proximity to human beings than were most other birds, and therefore the opportunities for infection from human beings were greater than in the barn-door fowl, for example. But it was a big jump to say that parrots were usually affected with the human form of tuberculosis when they were affected at all.

Mr. MACCORMACK also desired to thank the author for his interesting paper. He confessed he had not diagnosed tuberculosis in the cat and dog as often, perhaps, as he ought to have done. The subjects of the disease he had mostly seen were birds, including poultry of the farmyard; and in cage birds, including the canary and parrot. Of cage birds the canary seemed to be the most frequent sufferer. In them one would find the spleen, the lungs and the liver invaded. He had been struck by the good general condition of the birds which were the subject of tuberculosis; there did not appear to be any wasting and emaciation. Some of the birds were quite fat. Six months ago he sent Mr. Gray the liver of a heron, which was a pet bird. It had died suddenly, and his opinion was asked. Mr. Gray examined it and found it tuberculous. Herons, of course, were reptile and fish-eating birds. This particular bird was fed on bread, wheat and other cereals. He did not know how the disease was conveyed to the bird. He had a little chicken only two weeks old which was hatched in an incubator and reared in a foster-mother. It died, and the post-mortem examination showed that its lungs were full of tubercle. He was surprised to find that in a bird so young, but Mr. Gray confirmed the diagnosis. He would keep a sharper look out in the future for the disease in dogs and cats.

Prof. MACQUEEN asked whether Mr. Gray had ever tested a bird with tuberculin, and if so, how he carried out the test. How did he test the temperature? One might want to know how to discover the disease without subjecting the bird to a post-mortem examination. With regard to the accumulations or excrescences round the eyeball and about the feet, he asked whether some of these enlargements were not due to parasites—to acari. He would also like to know whether the author considered that cutaneous tuberculosis was very common in the smaller animals.

Mr. GRAY, in reply, thanked all who had spoken on his paper for their remarks. He regretted, however, that others did not bring forward some evidence of the transmission of human tuberculosis to animals. If Mr. Livesey had not left early he could have spoken of a particular case in which he, Mr. Gray, was consulted. Mr. Livesey came to him with the dog of a physician which was thought to have some disease of the rectum. As soon as he, Mr. Gray, saw the dog he concluded it was tuberculous. It was somewhat thin and wasted, and there was pronounced wasting of the temporal muscles; and had a peculiar tubercular expression. He had noted the same expression about the dog with the disease as had been observed in man. The physician did not want to have his dog killed, and he, Mr. Gray, advised him to treat the rectal trouble by means of a suppository. At the end of three weeks the dog was killed, and the diagnosis was confirmed by Mr. Livesey. He was afterwards told, the physician's wife was dying of tuberculosis, and the physician himself had got the disease. The dog had been in constant communication with its owners. He had seen similar cases time after time. A few months ago a boy came to him with a dog which was breathing rapidly, and had evidently effusion in its chest, also in the abdominal cavity. Looking at both dog and boy, he concluded it was tuberculosis. He asked the boy if he was well, and he replied that he was; but he found that he had the phthisical expression well known to physicians and observant laymen. He got the boy to tell his father to

come round, and he also was found to have a similar appearance. He killed the dog, and found that there was hydrothorax, hydrops pericardii, and ascites and tubercles in the liver.

Several years ago he sent to Sir John M'Fadyean many cases of tuberculosis in the dog and cat, and gave him instances of the owners of the animals being tuberculous. He sent him two tuberculous cats from one house in one week, both having pleurisy, from an institution in South London. One of the cases had unilateral hydrothorax and the other two-sided. The two cats had been taken care of by a man who had a tuberculous son, who was very fond of the cats, and they were always in his company. Also two tuberculous dogs belonging to a tuberculous young man. He excluded from his paper tuberculosis of domestic poultry and semi-domestic game birds, because he believed them to be under ordinary conditions, very resistant to mammalian tuberculosis. He had often seen tuberculosis of the cat's kidney, and he formed a rough guess of it during life by examining the abdomen with the hands. In the cat the kidneys were floating, and they could be felt, and when they were found were much enlarged, in nineteen cases out of twenty, they were tuberculous. It was also easy to manipulate the mesenteric glands to ascertain whether they were normal. When a cat was brought to him and he did not know what was the matter, he always manipulated the abdomen. When tuberculin was negative he excluded tuberculosis. With regard to human tuberculosis in birds, he believed that every authority who had given attention to the subject had demonstrated that birds in general suffered from all three types of tubercle bacilli. Dr. Lydia Rabinovitch, a distinguished comparative pathologist, for many years carried out a systematic examination of birds which died in the Berlin Zoological Gardens, and concluded that birds were affected with all three types. And Cadot alone or in conjunction with Gilbert and Roger many years ago carried out a series of experiments and concluded that the parrot was commonly affected with tuberculosis of the human type, and when a tuberculous parrot or dog was taken to the Alfort Veterinary School, examination of the sputum of the owner revealed that he or she was often tuberculous as well as the parrot or the dog. The Royal Commission on Tuberculosis also concluded that the parrot was very subject to human tuberculosis. It was common for parrots to be fed with food from the owner's lips, or with bread and milk. He had not seen a case of the disease in the canary. It was possible to mistake tuberculosis for aspergillosis and other bird affections. He had had an epidemic of bird fever in his place, and lost a great number. All those birds had nodules of the spleen and liver, resembling those of tuberculosis. He sent some of them to Sir John M'Fadyean, who found a small bacillus, but did not carry the investigation further. He had never yet seen tuberculosis in ordinary small cage-birds, though he had seen in them numerous cases of aspergillosis and bird fever. One could not differentiate the two conditions merely from the appearance of the nodules; a bacteriological examination must be made. Hence it would be very risky to judge merely by the appearance of the lesions. With regard to dosage of tuberculin, he did not think it mattered much what the dosage was; what was required was a reaction. Approximately, he used 1-6th to  $\frac{1}{2}$  m. per lb. of the animal weight. In practice he gave about 5 m., or even 1 c.c. He did not consider there was any danger, and he had never seen a dog killed with it. He did not understand why tuberculin was not more used. Recently a dog was brought to him with fistula in the neck and swollen stifle. Connecting up the facts led him to regard it as tuberculosis. He killed the dog, and found miliary tuberculosis in the

lungs and liver. It had been treated as abscess and ordinary sprain. Cadiot and Lannelongue and Petit said that nearly all the tuberculous dogs of Paris belonged to restaurant keepers, and they considered that they contracted it by inhalation. Paris restaurants were provided with spittoons, and probably they were resorted to by the dogs, who would thus acquire the disease by ingestion. In answer to Prof. Macqueen, the same means of diagnosis could be adopted in regard to birds as in other animals. But the normal temperatures of various species must be remembered. That of domestic poultry was 106.5°, and of the canary 108°. In some water birds he believed it was as low as 100°, in the ostrich 98° or 99°. The thermometer was placed in the cloaca. He believed the normal temperature of the swallow was 112°. The smaller birds, however, rarely, if ever, had tuberculosis under ordinary conditions. There were many nodular lesions which were not necessarily tubercle, but those about the beak were usually tubercle. There were nodular lesions in epitheliosis, and in some birds there was even gouty tophi. In avian cholera there might be caseous or necrotic nodular lesions. Cutaneous tuberculosis was much commoner in cats than in dogs. One began to suspect tuberculosis when there was no response to ordinary treatment, and a fistula was left. He did not suggest that because an animal had tubercle it must die. The poorer owner would have his animal killed before it got to the same stage as the rich owner preserved his to. He had known cats and dogs live for a year or more after being known to suffer from tuberculosis.

A vote of thanks to Mr. Gray for his paper, and to members who had shown specimens was carried, and the meeting concluded.

HUGH A. MACCORMACK, Hon. Sec.

#### MEETING OF VETERINARY INSPECTORS.

##### THE TUBERCULOSIS ORDER OF 1913 OF THE BOARD OF AGRICULTURE.

The report of the proceedings at the public portion of the meeting has already been published. The following is a report of the opening statement by Sir Stewart Stockman, and the subsequent discussion.

Sir STEWART STOCKMAN: I would like in the first place to say that I am not here to discuss the merits or demerits of an Order which has been issued by the Board of Agriculture. Such a position would be improper on my part as an official, and it was distinctly on the understanding that that was not the object for which I was asked to come that I consented to be present to-day. I am here to explain, so far as I can, the meaning of the various Sections of Articles, according to the Board's interpretation and to meet the veterinary inspectors from all over the country to explain to them, and if necessary arrange with them, the proper way to carry out this very important Order. I do not wish you to think for a moment that I desire to smother any discussion on the merits or demerits of an Order issued by the Board. I merely want to point out that if that takes place, it must be a meeting that I cannot attend.

The Chairman has explained how important an Order it is, and on that point I do not propose to talk further. In the beginning I would like to explain that a good deal of misunderstanding has arisen about the Order, partly because it has been so much talked about in relation to public health. Many people have come to believe that it is a Public Health Order. That is not the case. The Tuberculosis Order is drawn under the Diseases of Animals Act, and it is intended to be administered by the authorities under that Act. Its direct object is to make a beginning to reduce the amount of tuberculosis in animals by removing certain

cases of tuberculosis, the removal of which seems to be practicable, and which are believed to be specially liable to disseminate tubercle bacilli in considerable numbers. Whether there will be a next step, what it will be, and when it will be possible to take it, must rest on the experience gained and the circumstances found to exist in the future. I venture to think, however, that it will be the duty of the veterinary profession to do everything in its power to make a next step possible, and, as the result of the experience which we as a profession hope to gain, to point a way. The operation of the Order, however, will also certainly exercise a beneficial effect on the health of human beings by helping to purify the milk supply; and in framing some of the Articles, just as in the Anthrax and Foot-and-mouth Disease Orders, the double effect has not been lost sight of. But public health is not the direct object of the Order; it will be only the indirect effect, and, of course it is a very important one. In explanation of the true objects of the Order I would like to read to you from one of the letters explaining the Order issued by the Board. But before I do so, I would like to mention the fact to this meeting of veterinary inspectors that every important Order that goes out from the Board is accompanied by one or more covering letters of explanation. These letters are composed by the legal experts, the administrative experts, and the veterinary experts working in collaboration, and the information is sent out to local authorities for distribution. I mention that, because I find on talking to a great many veterinary inspectors that they do not seem to get that information from these letters. (Hear, hear). To my mind the letters on the Tuberculosis Order practically explain the whole thing, and if every one of you had read them, I doubt very much if you would have wanted me to meet you to explain the Order. I want you to know that such letters do go out, and if you do not receive the information contained therein, you ought to ask for it. The Board do not distribute them to individual inspectors; they distribute them to local authorities, and as I understand it they are supposed to distribute the information to all the people concerned. You will always find them in the county clerk's office, and I have no doubt he will give you copies or let you make copies for your information.

I wish to read certain paragraphs from a letter that was sent out on the 17th February, 1913, which will show you that the Order is issued in the first place in relation to the health of animals.

Paragraph 4 of that letter says, "In considering the question of tuberculosis in relation to animals, the fact that the disease is thus communicable to man has a material bearing on the measures to be adopted. Any action which results in the reduction in the number of tuberculous bovine animals in the country must reduce the risk of the spread of tuberculosis amongst the community, and if it were possible to eradicate from this country the disease in animals, a material step forward would have been taken in the campaign against the disease in man."

Paragraph 5. "It is abundantly clear at the same time, that any operations aiming at the diminution or eradication of tuberculosis in animals must be commenced with caution, and carried out with due regard to the extent to which the disease is believed to exist amongst cows, and to the importance of securing the continuance of an adequate milk supply, and also of avoiding any disorganisation of the important industry concerned."

Paragraph 6. "The Order, the leading provisions of which are set out below, aims at securing the destruction of every cow found to be suffering from tuberculosis of the udder, or to be giving tuberculosis milk, as well as of all bovine animals which are suffering



from tuberculosis with emaciation, since these are known to disseminate freely the germs of the disease. In thus confining the provisions of the Order to those forms of tuberculosis only, the Board have not lost sight of the fact that it may be possible in the future to take further action in the light of the experience gained. They feel, however, that heroic measures taken at the present time would only defeat their own object."

The meaning of that is that if you try to go too fast in eradicating any disease you get everybody concerned up against you, and it practically says that this is a tentative beginning in the eradication of tuberculosis. Some of the operations under the Dairies and Cow-sheds Order, the Milk Clauses, and any future Milk Act, will sometimes have the effect of putting the Tuberculosis Order in operation, but the Order itself must not be strained into a Milk Act. This will destroy its usefulness by raising opposition against it. In that connection I would like to read again from the Board's letter of the 17th February. It first refers to the expense of slaughter and compensation, and then says "On the other hand, the liability of the Treasury and of the local authority to provide such compensation on the present basis from public funds is a serious one, and cannot be continued unless events show that a return commensurate with the burden imposed is being obtained. It behoves agriculturists, therefore, to second the efforts of the public authorities by the segregation of all bovine animals which respond to the tuberculin test, so as to prevent tuberculosis from being spread within the herd, and the Board will be prepared to advise how this can best be done in particular cases." That simply means that the Board have in view that, having made a start, they do expect that agriculturists will help them to go further to the extent of making an effort themselves to rid their herds of tuberculosis.

In paragraph 14 the letter of the 17th February continues, "The Board desires at the same time to point out to Public Health Authorities that any extension in particular localities of the measures now to be taken throughout the country generally, may prejudice their utility." The meaning of that is that we had in mind that men would not test their herd with tuberculin if the Health Authorities came down on them, and refused to have the milk of the re-actors sold to the public. What the Board feel and what the veterinary profession must feel is—that we cannot possibly encourage stock-owners to tuberculin their animals and separate them if the Public Health Authorities are going to extend their powers to the extent of forbidding the milk of animals that have reacted to tuberculin to be sold.

Coming to the Order itself, I think we might take the various Articles that relate to veterinary surgeons. You will notice in Article 2 that the cows to be reported fall into two categories. In reality three categories of tuberculosis are dealt with by the Order, because if you look at Article 4 you will see that in addition to the two mentioned in Article 2, power is given to deal with animals which are giving tuberculous milk. As a matter of fact you could not ask a farmer to report an animal simply because it is giving tuberculous milk, as in most cases he would not know unless he had been told by an expert. You will observe also that when the report had been made, the local authority under the Order has to send information to the sanitary local authority. That is similar to what it obtains under the Anthrax Order. We cannot—and it is not advisable—to separate the diseases of animals from questions of public health, and we must help the health authorities as far as possible. I merely impress on you with regard to Article 2 that there are definite categories only of tuberculosis viewed by this Order.

There is not a great deal to be said with regard to Article 3, except that it reiterates the provisions of the

Notification Order as applied to practitioners. You will notice that the veterinary inspectors acting as such are not ordered by this article to report. As a matter of fact that does not matter very much. They will in the ordinary course report to their local authority, but it does not mean that any case will escape the provisions of the Order because it has been found by a veterinary inspector, for if he finds the case, and holds it up as a tuberculous case, as he will, the owner will have to be told, and he (the owner) will have to report under Article 2. I mention that because the point has been raised, "Why is the veterinary inspector not to report?" As a matter of fact a case before it can be dealt with under this Order has to be reported to the authority under the Diseases of Animals Act, and the intention of the Board in relation to that is to be found, partially at least, in paragraph 2 of the circular letter issued on the 25th March, which is headed "Reports of Disease and Veterinary Inquiry." It reads as follows: "The Local Authority may be set in motion (a) by receiving notice of suspected disease from the owner of an animal, or by other information relating to an animal kept on private premises; (b) by the discovery of a diseased animal in a market; (c) by the discovery of tubercle bacilli in a consignment of milk from a particular dairy; (d) or by receipt of a notice from a veterinary surgeon in conformity with the requirements of Article 3."

These, then, are the circumstances under which the Order will in all probability be put in motion.

Article 4 of the Order "Inspection and Examination of Animals" is very important. It reads as follows: "Where a local authority, by reason of information received under the preceding articles or otherwise, have reasonable ground for supposing that on any premises in their district, there is a cow which is suffering from chronic disease of the udder or giving tuberculous milk, or a bovine animal which is suffering from tuberculosis with emaciation." Note again that stress is laid on the three categories of tuberculosis, "the local authority shall with all practicable speed cause such veterinary examination of the bovine animals on such premises to be made by a *veterinary inspector* as in the opinion of the local authority is necessary to ascertain whether any cow thereon is suffering from tuberculosis of the udder or giving tuberculous milk; or whether any bovine animal thereon is suffering from tuberculosis with emaciation, and for that purpose the inspector may, with the previous consent in writing of the owner of the animal or of his agent, but not otherwise, apply the tuberculin test to any cow which the inspector suspects of suffering from tuberculosis of the udder, or of giving tuberculous milk, or to any bovine animal which he suspects of suffering from tuberculosis with emaciation."

This is one of the most important parts of the Order, and I understand from the Chairman that this is probably the one on which most explanation is desired, as to the position of the veterinary inspector. You will observe that the examination has to be veterinary, and it is to be such as in the opinion of the local authority is necessary. At the same time very definite instructions have been issued by the Board on the point of what is necessary, and who is to do it. The instructions which have been issued by the Board embody their view of how the diagnosis should be made, and who should do it, up to a certain point, of course. You will find them in paragraph 3 of a letter of the 25th March: "Where the report has been received in respect of a particular animal, the examination conducted by the veterinary inspector should not be confined to the animal which was the subject of the report, but should be extended to other bovine animals on the premises, and particularly to all milch cows, and the veterinary inspector should make an exhaustive clinical examina-

tion of any animal there is reason to suspect of suffering from tuberculosis of the udder, from tuberculosis with emaciation, or of giving tuberculous milk." [That means that a man, if he finds one case, is not to take it that that is the only case. Once he visits he is to have a good look for other cases]. "Since the local authority will be liable to pay full compensation for any animal slaughtered by them as regards which the post-mortem examination does not show that it was affected with tuberculosis, they should be careful to see that in all cases every available test has been made use of before their final decision is reached as regards a particular animal. To this end they should issue instructions to their veterinary inspectors that (a) in the case of cows suspected of having tuberculosis of the udder or giving tuberculous milk, samples of their milk should be centrifugalised, and examined for tubercle bacilli with the microscope; (b) in the case of animals suspected on account of an abnormal discharge, the latter should be examined microscopically for tubercle bacilli; and (c) in the case of animals suspected to be suffering from tuberculosis with emaciation, but which are not suspected to be suffering from tuberculosis of the udder or to be giving tuberculous milk, all possible use should be made of tuberculin under Article 4 (1) of the Order. In the event of a diseased animal being found in a market, fair ground, or sale yard, the veterinary inquiry should be extended to the animals on the premises whence the diseased animal was taken to the market, etc. In order that this may be done, the local authority in whose district the market, etc., is situated, should, where necessary, communicate with any other local authority concerned." Paragraph 4 of the same letter goes on: "Should suspicion first be aroused by the discovery of tubercle bacilli in milk from a dairy, the inquiry of the veterinary inspector should be directed to the discovery of the particular cow in the herd giving tuberculous milk."

Perhaps the best means for effecting the latter will be a useful subject for discussion. I must say that it is not an easy matter for anyone to undertake, but I believe that a system can be followed which at least would give the best results. I do not suppose we will ever get anything perfect.

Paragraph 5 is also important, and it has a bearing on Para. 3 which I have just read as to diagnosis: "It is of importance that the decision of the local authority should be come to without avoidable delay, in view of the restrictions imposed by Articles 9 and 10 of the Order during the time that an animal remains under suspicion, particularly as regards dairy cows." That means this, that although the microscopical examination may not be everything, a man has to do everything in his power to get his diagnosis through as quickly as possible, so as not to hold up cases merely on suspicion. I grant you that some cases must be held up for some time, but where it is possible to get the examination through and the animal set free or condemned, it should be done as quickly as possible, of course, paying due regard to the object that you have in view. With regard to Para. 3, I want to impress upon you that it is for the veterinary inspectors to make all these examinations when they come in contact with the case. They must make these possible examinations themselves thoroughly, and get them through as quickly as possible. I admit that these methods have their limits; they carry you a certain length only, but they carry you a very great length, and to put these things in the hands of the veterinary inspector is, I am sure, to make him a much more important man than by asking him to hand them over to somebody else. (Hear, hear). My own feeling is that that is largely the crux of the whole thing, and it will be the crux of the veterinary inspectors' position in relation to diseases of this

kind, that they shall do these things themselves. Of course we are not going to say that they are of greater importance than they really are, but they should do them themselves instead of sending them away to somebody else and admitting that veterinary inspectors are not capable of doing these things. That I think would be fatal to the position of veterinary surgeons in relation to this Order.

What I think we have to remember and note is, that the examination must be carried out most carefully and laboriously, and we must also remember that the result of the diagnosis is of great importance. First of all it is important to the business of a farmer and to his convenience; it is of importance to the public health, and it is also of importance to the rates. If the diagnosis is carelessly made, and bacilli are still found to be coming from the farm, the health authorities may send somebody else to clear the matter up, and that is what a veterinary inspector would particularly wish not to happen in relation to his work. I impress upon you that in relation to the work under the Order there will be more authorities to satisfy than one, and differences of opinion are bound to arise. But it should be particularly the duty of the veterinary inspector to see that he at least has done everything possible that a practitioner or a veterinary inspector, situated as he is now, can do to arrive at a correct diagnosis.

Paragraph 6 of Article 4 says: "If the report of the inspector as to any animal does not show that it is suffering from tuberculosis of the udder, or giving tuberculous milk, or suffering with tuberculosis with emaciation, the local authority shall forthwith give notice in writing to the owner." I take it, however, that even if your microscopical examination has given negative results, and you still consider from clinical examination and knowledge or from other reasons, that the animal has one of the forms of tuberculosis, you are not bound to say this animal is not affected; you can then, if it appears advisable to you, ask that there should be an inoculation test or something else done, and you can send in a report of that kind to your local authority. But I do see why, if a veterinary inspector considers that another test of that kind is necessary he should not be the person to communicate with the people who are going to do the further test, and he should get the report himself or through his authority he should make the final report with the diagnosis. If he has sent a sample away for inoculation, the report should come back to him, and then he should finally make his diagnosis with all the information before him. I give that as my personal opinion on the matter, but it is for you to see how you can arrange it with your local authorities.

There is nothing really to say on Article 5; it merely deals with the slaughter of diseased animals. They are slaughtered on the veterinary report, and really it is more a question for the local authority than for the veterinary inspector, I think.

On Article 6 there is very little to say so far as the veterinary inspector is concerned, because it merely fixes the basis of valuation. Whether that is a good one or not, is not for me to discuss.

Article 7 deals with the question of post-mortem examination. So far as the post-mortem examination is concerned, I think it is plain that the local authority will use their veterinary inspectors. On the other hand it has been represented that sometimes the owner, who is concerned in the amount of compensation, may object to the veterinary inspector. It is open to the owner to say before slaughter whether he will agree to have the degree of tuberculosis in the post-mortem reported upon and acted upon by the veterinary inspector. If he does not he is at liberty to propose somebody else, another veterinary surgeon to whom the local



authority must agree. If they do not agree it is then referred to the Board, and the Board themselves will fix upon somebody to make the post-mortem.

Article 8 deals with compensation. An owner is to be compensated according to several conditions. If a mistake has been made, and his animal is not tuberculous, he is to get full value plus 20/-. If on the other hand the animal is suffering from tuberculosis which is not advanced, he is to get three-quarters. If the animal is suffering from advanced tuberculosis he is to get one-fourth, and it is for the veterinary surgeon to give a report saying whether that animal is suffering from advanced tuberculosis or not. The definition of advanced tuberculosis has been laid down so that it will be uniform in each case, according to the recommendations of the Royal Commission on Tuberculosis. But there is a particular thing to note upon this compensation, and that is that the local authority are bound to have a veterinary examination. If they do not have a veterinary examination they have to pay full value for the animal.

The Chairman says to me that there are two valuations. That I may explain to you straight away is a very knotty point. It is one that does not concern us as veterinary surgeons, and it is not one that I can discuss. I believe there is a good deal of dissatisfaction about it, but there is no reason why I should not explain it if anybody is under any misunderstanding about it. Why it may be advisable to explain it is this, that I know that very often the veterinary inspector acts as the valuer; he arranges with the owner and it works very well. In many cases the owner and the veterinary inspector agree as to the valuation. That being so, it might be necessary to point out that there are two valuations under Article 6, namely, the valuation of the animal as it stands; and the valuation as it stands, but subject to a lower valuation if the animal is tuberculous; that is two valuations valued on the assumption that it is quite healthy and also valued on the assumption that it is tuberculous.

Before leaving Article 8 the question arises as to what is to be done with the carcasses. The carcasses become the property of the local authority after the compensation is paid, and on that point there is an instruction by the Board in the letter of the 25th March, which runs as follows:

Paragraph 8. "With a view of securing to the local authority the maximum amount of salvage as a set off against the compensation they are required to pay under Article 8 of the Order, it will be advisable in the case of animals apparently in good condition that the animal should be removed under supervision to a slaughter-house or some other place where the carcass can be conveniently dressed for food, and that the post-mortem examination of the carcass by the veterinary inspector or veterinary surgeon, required by Article 7 of the Order, should there take place." The question of the disposal of the carcass is not viewed by this Order at all. The Order of the Board of Agriculture has nothing to do with carcasses of this kind; they come under the Public Health Acts. But I might suggest that in many cases it will be very convenient to local authorities to make use of the veterinary inspector who is dealing with the case under the Order as a meat inspector. For instance, there will be many cases in which there will be partial seizure. That is all very well if the slaughter is done in a well regulated slaughter-house—a slaughter-house that is suitable for meat inspection; but if it is done at a slaughter-house where there is no service for meat inspection, I take it they will have to fall back on the veterinary inspector, and that he will have to say what part of the carcass must not be used. But that is not really my business; I mention it simply as something that may occur to your minds that has to be dealt with.

There is very little more that concerns us simply as veterinary inspectors. I might, however, draw attention to Article 10 which puts a very heavy responsibility on the veterinary inspector. (1). "Every person having in his possession or under his charge any cow which is, or appears to be, suffering from chronic disease of the udder, or any bovine animal which is, or appears to be, suffering from tuberculosis with emaciation, shall keep the animal isolated as far as practicable from other bovine animals, and also keep the animal in his possession or under his charge until the animal has been examined by a veterinary inspector in accordance with the provisions of this Order and the owner or person in charge thereof has been notified that this Article has ceased to apply to the animal; provided that the animal may at any time be slaughtered by the owner or person in charge. (2). A local authority, or a veterinary inspector on their behalf, may by written notice apply this Article to any bovine animal specified in the notice which is being examined under this Order, and such Article shall apply accordingly." That is to say, as a veterinary inspector you will have power in going through a byre to serve a notice on any animal that you think is suspicious.

There is nothing further that occurs to me to say in a preliminary explanation. No doubt certain questions will be asked which will bring out a fuller explanation of some of the points, but as I said before I am in the position that I can only deal with you on those points which concern the veterinary inspector as such; I cannot enter the discussions on the merits or demerits of the Order.

Mr. J. MALCOLM (Birmingham): I am sure we are all deeply indebted to Sir Stewart Stockman for explaining so lucidly to us the provisions of this new and important Order. I was particularly glad to see the letter of our friend the Secretary in the papers calling this meeting, because there were several points that I was not quite clear upon. Sir Stewart Stockman in speaking on the Order said we must not strain it into a Milk Order. I would ask in connection with that—if we have a return of tubercle bacilli in a mixed supply, do we set this Order in operation, or do we continue under the Health Act to follow the case up and inspect. Personally I assume it might be that we set this Order in operation rather than follow it up in the future, as we have been doing in the past. For instance, in Manchester, Leeds, Leeds, Birmingham and elsewhere we have been in the habit following these cases up, and in the future I take it, if it is to be under this order, the duty will be to communicate with the different local authorities, who will then take action by their veterinary inspectors.

Another point to which Sir Stewart Stockman referred was that some health authorities objected to the sale of reactors. Personally, I have never been acquainted with any health authority who took any step to stop the sale of milk from reactors unless they were clinically affected—unless they were in a condition that he describes here so that they should be slaughtered. Those are the only circumstances in which I have known health authorities object to the sale of milk from these cows. Unfortunately, in times gone by they had no power absolutely to stop the sale of such milk. Now, under this Order we shall have absolute power to stop the sale.

One point I intended to ask, but which I think Sir Stewart made clear in his speech, was in connection with a cow that was in fair condition, with chronic induration of the udder, but after our clinical examination we failed to find any tubercle infection. We obtained the farmer's permission to have her tested, and we found she was a reactor. What were we to do in that case? Under the Health Act he tells us now we can go a step further and induce the bacteriologist



to employ inoculation in the ordinary way that is done at present under the Health Act; but he rather deprecates that, and hopes that, as far as possible, we shall be able to diagnose those cases without having to wait for such a procedure.

Sir STEWART STOCKMAN: No, I do not deprecate it. I hope that everything will be done to make it unnecessary. That is to say, if you get a positive result by careful microscopic examination you need not bother any further. To attempt to diagnose every case by inoculating a guinea pig and keeping the unfortunate owner waiting is a thing to be avoided.

Mr. MALCOLM: I quite agree. We shall if possible—it is to the interests of veterinary surgeons—make the diagnosis ourselves; but when we have such a case that it may be a case of tuberculosis, but we have failed to find the tubercle in the milk, we would not like to pass that case, and we want to know exactly what we should do in such a case. Here we have freedom to make use of that measure when we fail in everything else. If we happen to kill a cow we must abide by the result, and if we have made a mistake, pay full compensation; and I take it that the man who does not make a mistake will not make very many examinations. (Hear, hear.)

Under compensation there are certain conditions laid down that we are to abide by. I had a case yesterday in our abattoir of tuberculosis of the vertebrae and no other tuberculosis in the body. I wonder how you would interpret such a case. Then it just possible that you may have tuberculosis of the udder and no tuberculosis in any part of the body. That is not provided for here either.

Sir STEWART STOCKMAN: Yes, it is provided for; three-fourths compensation if it does not come under the category of advanced tuberculosis.

Mr. MALCOLM: So that if a cow is affected with tuberculosis of the udder and nothing else, he gets three-fourths, because that would not be an advanced case.

Sir STEWART STOCKMAN: Yes.

Mr. MALCOLM: That was the point. I was not sure whether, in a case of tuberculosis of the udder, he would be entitled to three-fourths or one-fourth. In this case it appears he is entitled to three-fourths, providing the conditions laid down in the Order are complied with.

Sir STEWART STOCKMAN: They are quite clear in the Order.

The CHAIRMAN: In a case of primary tuberculosis of the udder you dress the carcass; that would go for meat.

Mr. MALCOLM: I thank you very much for answering these few questions, and I am sure many others present will take advantage of the opportunity for asking questions, because by asking questions we are able to get further information.

Mr. W. HUNTING (London): I rise because I am called on, but why in the world the Chairman called on me I do not know. I am a town practitioner, and very little do I know about cows and about tuberculosis. It seems to me that, as in all other new things, the putting of this Order into practice will involve a number of difficulties, and those difficulties will pass away or increase according to the tact, common sense, and knowledge of the inspector. The ground is quite wide enough for even those inspectors who are perhaps unable to work up the full Order, provided the Local Authority will help them. One of the difficulties I foresee is in connection with the valuation of the animal and the compensation. In horses we have had hardly any trouble at all with somewhat similar measures; the inspector and the owner have been nearly always able to agree on the value of the animal and the amount of compensation. But the owner of the cow is an agriculturist, and I believe he is more

particular about the odd sovereign or even half sovereign in the value of the cow than we find among the owners of horses. Section 8 dealing with compensation seems to be an awfully complicated affair. We give a man £2 for his glandered horse, and we give him half the value for mallein reactors; but here you have three different values; full value and £1 extra if it is not diseased; three-quarters value if it is diseased; and a final class one-quarter value. I take it that the owner's veterinary surgeon will be able to attend the post-mortem, and there will be a difference of opinion between the owner's inspector and the veterinary inspector as to the degree of disease and as to the compensation. But all these things will settle down in time, and will be much more easily got over if a little tact is used on both sides. Some compulsion may be brought to bear because you can stop this milk being used, you can have it isolated, and you have practically got the upper hand there. The question has been asked, what provision is made for the burial of diseased animals? I do not see anything about it in the Order, but I suppose that comes under the Act. Is the animal to be buried, or burnt or what?

The CHAIRMAN: I will now call upon Principal McCall, but before doing so I should like to say I think it would be better if direct questions were put to Sir Stewart Stockman rather than going over the Articles of the Order again. It will save time.

Principal McCALL: I thank Sir Stewart Stockman for the remarks he has made. So far as he has gone into the subject I understand exactly the position we are to take up as inspectors, but he has failed to give us any information as regards the suspected animals in markets, fairs, and sales. That is a very important section, and I should like him very much indeed to explain those Clauses as he has done in the other cases.

Sir STEWART STOCKMAN: On what particular point?

Principal McCALL: The whole of the Clauses in regard to suspected animals.

Mr. J. W. BRITTLEBANK: I did not quite understand Sir Stewart's explanation of Article 3 in regard to the position of a veterinary inspector who regularly inspects cattle in an area such as is defined by the boundaries of a city. I have a note here in which I have put Sir Stewart down as saying, "The veterinary inspector cannot report; he must tell the owner to notify." I should like to know whether I have got this note down correctly.

It seems to me that we might have some little lead in regard to valuation for compensation. As it stands we have to value under two heads, (1) the potentially healthy animal, and (2) as a tuberculous animal. I can quite see that most of the valuations will be arrived at by the veterinary inspectors in conjunction with the owners, but I do not quite see how one is to value a tuberculous animal. Are we to understand that we are to take the valuation of a beast such as this for practical purposes, at what such a cow might be likely to fetch in an open market where a man might be content to buy her on spec? I can see that two valuations have been arrived at for a definite purpose, possibly so that you may be able to fully compensate a man on a liberal scale for a mistake—and I think you should over-compensate him in that case. But the difficulty seems to me to be the relative values between the animal as a healthy one, and as a tuberculous one.

With regard to the latter portion of Article 10, detention and isolation of suspected animals, I take the wording of that Article to be absolutely literal, and that the animal may at any time be slaughtered by the owner or person in charge without giving any notification to anybody. There is no mention made there that if they intend to do so they must notify their intention.



Sir STEWART STOCKMAN: I think what you have in your mind is an owner who has given notice of such a case. He is then under restrictions, but if he does not want to keep that animal and he may say, "Why should I keep this animal until you have finished inspecting it for tuberculosis. I would rather slaughter it." I think what you have in mind is the question of the carcase being sold as meat.

Mr. BRITTLEBANK: Yes.

Sir STEWART STOCKMAN: The Order has nothing to do with meat. The Board of Agriculture cannot touch that. I take it the Local Government Board may have something to say on that under other regulations, but the Tuberculosis Order cannot deal with that question.

Mr. BRITTLEBANK: There is another point in Article 6 to which I should like to refer. If when a valuation is made and an animal is slaughtered and is found not to be suffering from tuberculosis, but some other diseased condition is present, on what basis is compensation to be paid? Supposing we get, as is fairly common in the districts that I go into, a good many animals affected with John's disease, and on post-mortem one finds there is no tuberculosis, do you have to compensate for those animals at their full value as potentially healthy animals?

Sir STEWART STOCKMAN: No, as valued by the valuer as it stood, if it has not tuberculosis. The valuer values it as it stands, and you have to pay that.

Mr. MINOR (Manchester): I should like to know the exact point at which this Order comes into operation. You know I have no doubt that the Milk Clauses which are in operation in many cities throughout this country will clash to some extent, and I should like to know where this Order comes into operation and where the Milk Clauses cease. Supposing that the Health Authorities have discovered tuberculous milk in a mixed sample. They report to the Local Authority for the purpose of this Order that tuberculous milk is coming from a certain dairy. I would like you to explain whether it is then for the Local Authority to step in and take over the matter and deal with the case under this Order as a Diseases of Animals Order.

Sir STEWART STOCKMAN: I should like to explain that this Order does not repeal any Public Health Act; it does not take away any rights under a Public Health Act. What it means is this, that now, instead of simply saying that milk shall not come from this cow to the district reporting, the animal can be slaughtered under the Order. Reported under the Order, it is condemned, and it cannot get out of your clutches.

Mr. MINOR: As a matter of fact the Health Authority says, "You must put this cow on one side," but now under this Order we can say we will take that cow and destroy the source of the infection."

The CHAIRMAN: That is the point.

Mr. MINOR: Then there is the point about the valuation of an animal. It may be that the veterinary inspectors in many districts will be called upon to value the animals, or it may be that the veterinary inspectors might even ask for someone else to value them. Supposing we ask someone else, who shall value this animal, the butcher or the farmer? Because there will be an enormous difference in the valuation. If the animal has a value as a butcher's animal it will fall very low, but if she is a good milker and the farmer values her she will rise accordingly. If she is palpably a diseased animal it will not want much valuing, I take it.

Sir STEWART STOCKMAN: Valuers are provided for.

Mr. DUNSTAN: There are one or two points I would like to put in the form of questions. The first is with regard to diagnosis by local veterinary inspectors. Under some new human tuberculosis legislation which has come into force, tuberculosis laboratories have been established under various Local Authorities, County

Councils, Town Councils, and so on, and it may be suggested when this Order is under consideration that samples of milk shall be sent to those Institutions for examination and for diagnosis. I would like to know what we are to do if such suggestions are made.

Sir STEWART STOCKMAN: I cannot answer that. The administration of the Order is in the hands of the Local Authorities. If they say do this or that in terms of the Order you have got to do it. Veterinary Inspectors are their servants. But what I do say is this, that if they use these institutions, these institutions should give room in the laboratory for the veterinary inspector. But if you can make a diagnosis in the majority of cases without them, then you retain your position.

Mr. DUNSTAN: Another point is—if the diagnosis is left to the ordinary inspector, has he a perfect right if he is not sure about the examination of any particular specimen to submit it to any Authority, or is he bound entirely by their regulations?

Sir STEWART STOCKMAN: I am afraid he is the servant of the Local Authority and must do what they tell him. I cannot interfere in a matter like that.

Mr. DUNSTAN: Another point is that many Local Authorities have no veterinary inspectors of their own. The real inspectors are the police, and the veterinary surgeons are called in by the police to act when occasion requires. I take it under this Act the Local Authority will be required to appoint a veterinary inspector. If we read the interpretation clause we shall see that "inspector" includes "veterinary inspector." In veterinary cases a veterinary surgeon in the course of his practice will meet with a case which he suspects to be tuberculosis. Supposing he is the veterinary inspector of the district and he meets with this suspected case and he reports it to himself, is he entitled to this fee of half-a-crown?

Sir STEWART STOCKMAN: That is ruled by the Notification Order. If a veterinary inspector is a practitioner as well as a veterinary inspector, and reports a case as occurring in his private practice, not having been sent to it by the Local Authority, he is entitled to half-a-crown.

Mr. DUNSTAN: Even if he reports it to himself.

Sir STEWART STOCKMAN: He reports it to the Local Authority. He must report it to a police constable. But if he is sent by the Local Authority as veterinary inspector he is not entitled to half-a-crown.

Mr. DUNSTAN: I am still not quite clear with regard to the two distinct valuations. Suppose we are called in to value a cow and we value her at, say, £20 if she is healthy and £10 if she is tuberculous. We find that she is either suffering from advanced tuberculosis or slight tuberculosis, and we are paid either a quarter or three-quarters. Is that quarter or three-quarters to be on the lower valuation?

The CHAIRMAN: Yes, certainly.

Sir STEWART STOCKMAN: That is clearly so under the reading of the Order.

Mr. CAMERON: When the last two speakers were speaking the following circumstances occurred to me. Supposing I am busy all day castrating, and in the evening I go to remove the placenta from a cow. I am a quarter of an hour in the cow byre, and I cannot fail to observe that in the byre is a cow in a rather emaciated condition. I may hear her coughing two or three times while I am there. I take a glance at her and I see she is breathing a little faster. Is it my duty to take no notice of that—I am the veterinary inspector for the district—or is it my duty to go the next day, or as soon as is convenient, and act as the veterinary inspector in a case the knowledge of which I have obtained in that particular manner? I am not concerned with the half-crown; it is the manner in which I ought to act.

Sir STEWART STOCKMAN: That is very clear. If you go to take away the placenta from a cow and there are

other cows there with tuberculosis of the udder, I am sure the Order never intended that you should act as spy and report the owner. But if your client calls you to see a cow's udder and you find or believe it is tuberculous, then you have got to report it. I think that is the distinction in the Order. It would also be friendly action to advise a client to report such a case as you mention.

Mr. CAMERON: My idea was that, according to the old reading, if an inspector from any source whatever finds any contagious disease, it is his duty to act upon that knowledge no matter by what means he got the knowledge.

The CHAIRMAN: So you would.

Sir STEWART STOCKMAN: I cannot give you a dissertation on general morals, but I think in the circumstances that you relate, if it was a case of foot-and-mouth disease he ought to be shot if he did not report it. The Order does not mean that a man in walking through a client's byre, if he has gone out to have afternoon tea or to relieve a cow of her placenta, is expected to report that he saw a cow there with a swollen udder, but if he is called to see that cow with a swollen udder, and he finds or suspects it is tuberculous, that is in the course of his practice—these are the words—if in the course of his practice he finds such a case he is bound to report it.

Mr. COLEMAN: The Order is explicit except in one or two little details. For instance, it does not say how the carcasses of very badly affected cattle are to be disposed of. I think it would be rather defeating our own ends if they are allowed to go for cat's meat, or to be eaten by pigs, or anything of that sort. Further, most of the details seem to be left to the Local Authorities. We had a little meeting the other day and at that meeting these suggestions were made. One suggestion was that in every Police Division where there is a veterinary inspector appointed under the Contagious Diseases of Animals Acts, there should be a slaughter-house erected for the purpose of destroying all these cattle therein. Then any of those that were fit for human food could be stamped and marked and sold in the central market, or wherever they went. The others would be stamped and condemned and I take it destroyed in a destructor or buried in lime, whatever the suggestion may be.

The CHAIRMAN: I am afraid those are matters for the Local Authority afterwards; we must confine ourselves to the Order as it stands.

Sir STEWART STOCKMAN: I have already explained that the carcass belongs to the Local Authority if they have paid compensation. When they have paid compensation, then they can do what they like with it. But there are, I believe, very definite instructions issued by the Local Government Board about what carcasses should be destroyed; they come in the list of advanced tuberculosis, and I take it no Local Authority would dispose of a carcass of that kind.

Mr. COLEMAN: My question was what method would be adopted.

Sir STEWART STOCKMAN: That is for them to consider; an inspector can advise, if he likes.

Captain PARKER: A few weeks ago I had the opportunity of spending two or three hours with several officers at the Board of Agriculture, and it was pointed out to me that this is the first occasion practically in history that the Treasury have guaranteed money to be spent by any Board or any officers outside their own Department. The amount of money they have guaranteed is small really, but it is a beginning, and what was impressed upon me was that it should be the earnest endeavour of every practitioner to spend that money to the best advantage and to be as economical as possible. In discussing the valuations, the line that was laid down in our conversation was that if you take a

cow worth we will say £20 you take £5 off for an indurated udder. You then make your post mortem, and if she is tuberculous the compensation paid is three-fourths of the £15, not three-fourths of the £20 which the cow was worth, so that you have practically an extra valuation which does not really show itself here. You have the £20 beast, you take £5 off for the indurated udder, and if the cow is tubercular your valuation is three-fourths of the £15.

Mr. . . . Would not it be better if questions only were asked instead of people entering into a discussion and each one giving his opinion?

The CHAIRMAN: If you remember I made that suggestion.

Mr. . . . But you are not keeping to it.

The CHAIRMAN: I think you would cover more ground by simply asking questions.

Mr. CARLESS: I should like to ask Sir Stewart Stockman if this Act will come seriously into force on the 1st May or whether it depends upon the attitude of the Local Authorities.

Sir STEWART STOCKMAN: I cannot answer that. It is down to come into force on that day.

Mr. CARLESS: Is it possible to find bacilli under the microscope in a diseased udder of a cow?

Sir STEWART STOCKMAN: Yes. I do not say that you will always find them, but it is possible to find them.

Mr. CARLESS: Then with regard to isolation, everybody having a cow which appears to be suffering from tuberculosis is supposed to keep the animal isolated, but that is not always possible. In some cases, for instance, in towns where a man keeps six cows, he has six stalls and a place for his pony. Where is the cow to go to when she is under isolation?

Sir STEWART STOCKMAN: Isolation can only to be carried out as far as practicable. You cannot tell a man to put up a new building, and if all his other buildings are full you cannot tell him to put the cow in the kitchen. It can only be as far as practicable.

The CHAIRMAN: You must do the best you can.

Sir STEWART STOCKMAN: We know that that is often a great difficulty, but there is no getting over it.

Mr. CARLESS: Then it says that the milk shall be boiled or sterilised and the inspector has to see that that is done.

The CHAIRMAN: The inspector does not have to see that it is done. The Order says it shall be done; but the inspector does not have to see that it is done.

Mr. WHITEHEAD: I should like to ask with regard to markets—the Order provides that if the owner does not want to take the animal home again he can take it to any suitable premises. May I ask if those suitable premises must necessarily be in the same district as where the market is.

Sir STEWART STOCKMAN: That is answered in the Order, No. (2) of Article 11. Might I deal now with Principal McCall's point about that. He wanted some explanation about animals in markets, but there are a dozen points in connection with that. Can you make it a little clearer? Do you mean that if an animal comes into the market, is it to be dealt with by the Authority having control over that market?

Principal McCALL: Yes, and by the veterinary inspector. You do not make that compulsory?

Sir STEWART STOCKMAN: I think it is quite clear in the Order.

Principal McCALL: Do not you think it would lead to diversity of action?

Sir STEWART STOCKMAN: I cannot discuss that point with you. The point is that if an animal is found in a market, fair, and so on, suspected of or suffering from one of these forms of tuberculosis, they may serve the owner with a notice, but it may be taken to other premises if they are considered suitable.



Principal McCALL: But supposing he objected to taking the animal back. Why should he have power to object to taking the animal back?

Sir STEWART STOCKMAN: That I am afraid I cannot deal with. You mean that if an owner refuses to go out of the market and go to premises you cannot make him?

Principal McCALL: This animal is brought, say, from Ireland, or from the county of Lanarkshire into the Glasgow Cattle Market. I am satisfied in my own mind that that animal is infected with tuberculosis. I hold it is my duty if that is my conviction to deal with it. But may I, or may I not? I hold that I ought to be compelled to deal with it. But it is optional here; I am not compelled. That should not be. For example, the inspector of the Glasgow market may deal with the animal, and another market may be not very far from him where they do not do it. In one case the inspector deals with the animal and condemns it; in another market they do not deal with it because it is not compulsory; it is optional. Why should that be so? Why should it not be compulsory?

Sir STEWART STOCKMAN: I see what you mean. You think "may" should read "shall"?

Principal McCALL: Yes.

Sir STEWART STOCKMAN: There is no doubt about what the intention of the Order is. I had not noticed for the moment the "may" there. Do you suggest that the Local Authorities will avoid this?

Principal McCALL: The position is simply this, that the energetic inspector is doing his best to detect the animals and get rid of the disease as soon as possible. He is the servant of the Local Authority, and the members of the Local Authority may say to him, "You are much too energetic in what you do. You are not bound to take notice of these things; it is 'may'; it is optional whether you do it or not." So that if a man does his duty faithfully, and the majority of the Committee of the Local Authority are against paying money, they will always be grumbling at what he is doing.

The CHAIRMAN: That will not be the fault of the Order; it will be the fault of the Local Authority.

Principal McCALL: No, I think it is the fault of the wording of the Order.

The CHAIRMAN: We must have this word "may" altered to "must."

Sir STEWART STOCKMAN: This is more a legal point which I do not feel competent to answer. But suppose you as an inspector told the man in charge, "your animal is suffering from tuberculosis of the udder." He is bound to report that.

Principal McCALL: That is so if the inspector says that, but he does not say anything at all.

Sir STEWART STOCKMAN: You mean he may have instructions from the Local Authority not to take any notice?

Principal McCALL: I would not like to put it that way.

Sir STEWART STOCKMAN: That is the way you put it.

Principal McCALL: Not altogether. It is how they are acting towards him as an inspector.

Sir STEWART STOCKMAN: I see the Professor's point. You mean that they may tell him not to be too energetic?

Principal McCALL: The other point is: Why should this individual have the power of saying that he will not take the animal back?

Sir STEWART STOCKMAN: If he desires it he can have it removed to special premises. He may have to send it a long way back, you know.

The CHAIRMAN: He can take it back to his own home again if he likes.

Principal McCALL: That is what I say. If I find an animal affected with tuberculosis in the Glasgow market coming from Lanarkshire I would naturally wish to get

rid of the animal, and then my friend Mr. Begg would have to deal with him.

Sir STEWART STOCKMAN: The intention of the Order is that the animal should be seized, but it does not seem necessary to insist on an animal on sale for slaughter being seized, if it will be slaughtered in any case.

Mr. TREVOR SPENCER: I should not have intervened in the debate, but as I feel convinced that one of the chief objects for which this meeting has been called has been neglected in the discussion up to now, I should like to make one or two remarks upon it. Anyone going away from this meeting at the present moment not understanding the question, would go away holding the opinion that the diagnosis of tuberculosis was the easiest thing in the world. My experience is contrary to that. (Hear, hear). I should just for one moment like to make a remark or two upon the question of diagnosis, because we have an opportunity of asking Sir Stewart Stockman for guidance with regard to our methods of diagnosis.

First, I would like to remark upon the microscopical examination of milk as a means of detecting tubercular mastitis. In my opinion a single microscopical examination of milk is often useless. You may have an udder showing clinical evidence of tubercular disease; you may examine the milk microscopically from that quarter, and you may fail—not once or twice, but many times, to find tubercle bacilli in the milk although the udder is tuberculous. What I want to know is, are we or are we not to consider the absence of tubercle bacilli in milk proves the existence or non-existence of tubercular disease of the udder? That seems to me a question that ought to be settled, because if we are called upon to give an opinion as to whether an animal's udder is or is not affected, and if, having examined the milk we fail to detect tubercle bacilli in it, and if then we are safe in saying the udder is not tuberculous I think we have done a good afternoon's work if we arrive at that conclusion.

Then I should like to say a word with regard to the tuberculin test. If you have an animal with an indurated udder showing clinical evidence of tubercular disease of the udder, and you test that animal with tuberculin and it gives a positive reaction, is that to be considered evidence that the udder is tuberculous?

I think the Order contains many pitfalls with regard to another phase of the disease mentioned, namely, tuberculosis with emaciation. There is no reason, so far as I know, why Johne's disease and tuberculosis should not exist in one animal at the same time. An animal suffering from incipient Johne's disease may not have any noticeable diarrhoea, but it will be affected with some loss of flesh. If that animal reacts to the tuberculin test we should, I take it, be within our rights in knocking down the animal. On post-mortem examination a very small amount of tubercular disease may be found, but the owner of the animal would be receiving compensation for an animal which was going to die very speedily from an entirely different disease from that for which he was being compensated.

One word more with regard to tuberculin. I take it tuberculin is going to be used very largely in helping us in our diagnosis. I should like to ask Sir Stewart Stockman if there is any probability of the sale of tuberculin being placed under Government control, because at the present moment it is being used—if not fraudulently, something very nearly approaching it. Of my own knowledge I know of herdsmen who often carry an ampule or two of tuberculin in their pockets. It is not for me to say what they propose to do with it, but I know if they at any time use that tuberculin on animals which we afterwards test, it will land us in difficulty. For the life of me I cannot see why it should not be put under Government control (hear, hear); and I think

also we should come to an arrangement that we use only tuberculin of standard manufacture.

Mr. J. S. LLOYD: I would like to ask if it is possible for the local authority to put the control of the Tuberculosis Order under the medical officer of health? Paragraph 5 of the circular letter sent out on the 25th March says, "It is suggested, therefore, that the local authority should make special arrangements for dealing with the reports received from their veterinary inspectors, and the issue of the necessary notification to the owner of the animal." I am going to suggest that all veterinary inspectors should take advantage of that circular letter and the remark which I have just made, in trying to get their local authority to make them the authority to deal with the notifications and administer the Order.

Sir STEWART STOCKMAN: How does the question arise?

Mr. LLOYD: I want to know whether it can be put under the medical officer of health or not. As a matter of fact at present it is being put under the medical officer of health in one town that I know.

Sir STEWART STOCKMAN: I cannot deal with any criticism of how this or that local authority is doing it. All I can tell you is that the authorities to administer this Order are the Diseases of Animals Committee of the County Councils and the similar bodies, and I cannot see one thing in the letter or in the Order that refers to the medical officer of health except notifying sanitary authorities that you have found a case.

Mr. LLOYD: Quite so, but is it possible for local authorities to give him the power to administer the Order?

Sir STEWART STOCKMAN: If a medical officer is not an inspector under the Diseases of Animals Act he cannot interfere in the Order. But, of course, the Order does not repeal Public Health Acts; he can rightly act under Public Health Acts; but when it comes to dealing with the animals, that must come under the Order, and the medical officer has no place in the Order.

Mr. LLOYD: In his opening remarks Sir Stewart made mention that a number of circular letters were sent to the local authorities, and that many veterinary inspectors present did not receive copies of them. I would like to know if he can tell us how many copies are sent to local authorities. I have copies in my hand of the letters, and as far as I know those are the only letters that have been sent to Sheffield. I received them from the Town Clerk of Sheffield.

Sir STEWART STOCKMAN: The rule is that the Board send these out to local authorities who are expected to circulate the information.

Mr. LLOYD: How are veterinary inspectors going to know that any particular cow is giving tuberculous milk when it shows no clinical symptoms of tuberculosis of the udder? I would also like to ask at what stages of emaciation are we going to deal with cows under Section 2? What I have in mind is this, and I dare say it will be borne out by gentlemen in country practice. You often get a cow which, up to the time of calving or being turned out to grass in the spring, is apparently all right, but in a few days you find she is running away in condition. Are we to take notice of that cow, supposing a veterinary surgeon is called to her and he suspects acute milary tuberculosis and pneumonia? Is he to notify that cow then to be dealt with as in a state of progressive emaciation, or is the veterinary inspector to wait three or four weeks till she becomes a total wreck?

Sir Stewart Stockman has not gone very far into the question of the biological examination of the milk. I am not disputing a word he has said, because everything he has said is quite correct, but I would like to make a suggestion. Is it not possible for the veterinary

colleges to deal with the inoculation of suspected milk into guinea-pigs and report direct to the veterinary inspector, rather than that the veterinary inspector should send this milk to be examined by the medical officer of health, and from there to a bacteriological laboratory?

Sir STEWART STOCKMAN: Who suggests it should go to the medical officer?

Mr. LLOYD: That is the practice at present.

Sir STEWART STOCKMAN: You want to be masters in your own houses. (Hear, hear.) If you will pardon me for saying so, I do not want to blame the veterinary inspectors, but what is in my mind is whether veterinary inspectors have really done all they can to direct the local authorities to do these things as they think they should be done. If a custom grows up with a local authority, of course the Board cannot interfere. I cannot criticise local authorities. Is it not possible for veterinary inspectors themselves to give advice to their local authorities to allow them to arrange for the whole diagnosis in a case of this kind?

Mr. LLOYD: I am throwing it out as a suggestion for the consideration of the members present. If you depend upon the result of the microscopic examination of special milks, you will not get 30 per cent. of the tuberculous udders present. I have had a large experience in examining cows during the last twelve or thirteen years, and I know what I say is correct. In Article 4 relating to testing with tuberculin the word "veterinary" is dropped. It says, "The inspector may test with tuberculin." I should like to ask Sir Stewart Stockman if that is intended to be a lay inspector or a veterinary inspector?

Sir STEWART STOCKMAN: That is clearly a veterinary inspector. It says that veterinary inspector includes inspector. It is for brevity.

Mr. LLOYD: There is another matter mentioned as to how public health authorities are going to inspect outside dairies. I take it that if the Milk Bill becomes law, the local authority where the mixed milk is taken will inform the authority from which the milk is sent, and then the medical officer of health will go out and examine the cows. I think myself there is no doubt about it that the veterinary inspector will only be acting in his own district.

I would strongly advise every veterinary inspector who condemns an animal to try, if possible, to be present at the post-mortem, whether he is allowed to make the post-mortem or whether another veterinary surgeon is called in.

A question was put by one speaker as to whether an animal could be killed without notifying the authority. I take it from what Sir Stewart Stockman said in his reply that that is not so, that the animal is detained and it will be necessary for the owner to notify or to state where the animal has gone to. What was in the mind of the questioner and my own mind was this: Is it possible for a cow to be detained under notice given by the veterinary inspector, and for that cow to be slaughtered without him being present or having any knowledge, and then for the owner to turn round and say "I want compensation?"

Sir STEWART STOCKMAN: No. It is possible under the Order for the owner to slaughter, but he slaughters it outside the Order. He says, "All right, I will remove my cow from the operation of the Order by slaughter." He gets no compensation for that.

Mr. LLOYD: I was going to say in reference to that, that one of the sections of the Milk Bill says that if a person suffers loss through the Milk Bill he will be entitled to recover compensation under Section 308 of the Public Health Act, 1875, and as all authorities know as regards butchers that is a very expensive matter. With regard to Article 9 dealing with milk, Sir Stewart passed it over altogether, but there is a power given to





veterinary inspectors there as regards making an order stopping owners from using the milk and compelling them to sterilise it. With regard to the question of the disposal of the carcasses where the animals are condemned, I was rather surprised that Sir Stewart did not give a more definite answer to that question. It is in the Order itself. Article 14 says, "Sections 19 and 20 (Slaughter in Disease and Compensation Generally); Section 43 (Police); Section 44 (General Administrative Provisions); and also for the purposes of all other Sections of the said Act containing provisions relative to or consequent on the provision of those Sections and this Order." That deals with the disposal of carcasses.

Mr. JONES (Liverpool): I should like to ask if the Board intends to standardise any kind of tuberculin, or whether practitioners can use the tuberculin that is manufactured in any town in their district? Some of the tuberculin I have used in the past has not given any reaction at all. With regard to the question of compensation for tuberculosis by local authorities, suppose a cow is valued by the inspector at £20, and she is found to be suffering from tuberculosis of the udder. She is slaughtered and shows slight lesions and tuberculosis of the pleura and peritoncum. She will necessarily become the property of the local authority. She may be perfectly fit for food and realise anything from £10 to £15. Do the local authority retain that money themselves?

Sir STEWART STOCKMAN: The carcass becomes the property of the local authority once they pay the compensation, but they must return profit to the former owner.

Mr. CAUDWELL: Is the valuation to be made before or after the tuberculin test? Is it necessary to inform the owner of his power to raise the objections which he may do under the Order—that is, objection to the testing, or valuation, or post mortem? Is it necessary for us before we do anything in the way of testing, valuation, or post-mortem to tell him that he has the power to object, or are we to assume that he knows he has that power?

Sir STEWART STOCKMAN: I think it would be only honest to tell him before you do anything. No one can object to your telling him. I think even a policeman is instructed to tell the man he arrests what his rights are.

Mr. CAUDWELL: Personally, I think it would be better to tell him beforehand if he does not know.

Sir STEWART STOCKMAN: I think in honesty you should ask him if he understands what he is doing by giving his consent.

Mr. CAUDWELL: Then I would like to ask with regard to the use of tuberculin, would you advise us to use the combined test, the ophthalmic test and the hypodermic test straight away, or would you rely upon the hypodermic test only? These tests involve several visits. What would you suggest as the very best hours after injecting with tuberculin to visit and take the reaction?

Sir STEWART STOCKMAN: There was one question I was waiting to answer that was asked about taking the animal into another district. That is provided for in Article 11 (2), "Where the premises to which the animal is required under this Article to be moved are not in the same district as the market, fair ground, or sale yard, the inspector serving the notice shall forthwith send a copy of the notice to the local authority of the district in which the first-mentioned premises are situate." He can do it but he must send a notice.

Mr. WHITEHEAD: My reading of that was I thought it was taking the animal back to the premises from which it came. My market is surrounded by a great number of other towns. Can these other towns refuse

to take those animals in and pay compensation in those districts?

Sir STEWART STOCKMAN: There is no provision for that.

Mr. WHITEHEAD: It will relieve my authority considerably if I can pass them on to other towns, which I intend to do if possible.

Sir STEWART STOCKMAN: With regard to the question asked about the testing, that must be left to the individual veterinary inspector. Personally I think a combined test gives the most useful results, but I should not think of interfering with a man who preferred the other method—the subcutaneous.

Mr. CAUDWELL: With regard to the time that the valuations shall take place, are we to value the animals before we apply the tuberculin, or after the test has been applied and the animal slaughtered?

Sir STEWART STOCKMAN: I am afraid the owner will make a condition about that. I do not see how it is possible to answer that question, because many owners will say "I do not mind you testing my cow, but I would like the valuation made first," and if you will not make the valuation first he will not give the authority to test. I am just afraid of that. As regards tuberculin testing, I do not see personally that there will be a great deal of that under this Order. I can imagine that if you are suspicious about an udder, and you carefully test the cow and find it does not react to tuberculin, it might be of great use in informing you that it is not tuberculous. One of the reasons for putting in tuberculin was to provide for excluding Johne's disease if possible, and I can imagine that if the test was negative the result would be of great use to you. If you get an emaciated animal and it does not react, using your clinical knowledge with regard to what an animal with Johne's disease is like, the test might come in useful. But I cannot say it will help you much to say whether this animal has tuberculosis of the udder. As regards the animal that is really emaciated from tuberculosis, I think you will find diagnosis possible in the majority of cases without proceeding to the tuberculin test. If you think in your wisdom it is required, it is there.

Mr. HUGH BEGG: May I ask whether Sir Stewart Stockman as a practical diagnostician would consider a positive smear in the examination of milk as positive evidence that tubercle bacilli were present. Probably he is aware that some authorities do not accept the smear, and that every sample is submitted to the biological test. Personally I accept it in almost every case, but I would like to know his opinion—whether he would be prepared to say that on all occasions when he got acid-fast bacilli in a fresh drawn sample of milk, unmixed, he would be prepared to condemn that milk.

Sir STEWART STOCKMAN: I do not think you would come to any grief by doing that. If you think for a moment—you have an indurated udder or an emaciated cow that might be passing tubercle bacilli, you make a smear and you find acid-fast bacilli. I did a good deal of this examination at one time, but being at the Board now and not having to deal daily with tubercle, I have not done so many smear examinations lately. I think probably in ninety-nine cases out of a hundred you would be right in diagnosing tubercle in a sample of milk under circumstances such as you describe. I know that some men working only in the laboratories are putting forward that suggestion. I do not agree with the tendency and desire to centre all diagnosis in the various public health laboratories when inspectors can do it themselves. Have you done anything about these other acid-fasts, Mr. Brittlebank and Mr. Lloyd?

Mr. LLOYD: At present we are dealing very considerably with the microscopic examination of milk. With clinical evidence of the udder and with an acid-fast positive smear we have the cattle killed, and so far we

have not met with a result that has not justified that action.

Sir STEWART STOCKMAN: That is my feeling in the matter, but I wish to take Mr. Lloyd's and Mr. Brittlebank's opinion because they have been recently working at it in a fuller manner than the man who only works with milk in a laboratory.

Mr. BRITTLEBANK: Our experience is this, that it depends largely on the method in which a sample is collected as to whether you will find the tubercle bacilli in it or not microscopically. The practice at Manchester for some time has been to comparatively empty the udder or the quarter which is suspected, down to possibly leaving three or four ounces of milk—it is a question for decision by a man of experience, but you soon get used to it. You withdraw it into a sterilised bottle, and in every case I say the veterinary inspector himself should take the sample—not allow one of the farm hands to do it for him. After he has emptied all the milk he can get out of the udder, he should then take the quarter in both hands and rub it well, and squeeze out the whole of the contents as far as you can of the distal acini, and you will then have a far better chance of getting the tubercle bacilli microscopically than if you take the ordinary sample. We have found in 65 per cent. of our cases that the tubercle bacilli have been found microscopically in a number of cases reported within 48 hours. There has been no hesitation in acting upon this report.

Sir STEWART STOCKMAN: You cannot go and merely draw a sample of milk and expect to find tubercle bacilli in it. Nobody intends to convey that impression. You must learn how to do it.

Mr. HALL: Assuming that a dairyman who is also a small butcher brought a cow to a local abattoir and it was eventually condemned under the Public Health Act for tuberculosis, would he be entitled to compensation?

The CHAIRMAN: Not under this Order, certainly not. He has not reported his case!

Mr. HUGH BEGG: It has been asserted that after-milk contains more tubercle bacilli. There are three stages of milk, the first milk, the middle milk, and the after milk. Do you think you should take the first sample or the middle sample, or the very last drop?

Sir STEWART STOCKMAN: I agree with what Mr. Brittlebank said. You take out all the fluid which is the diluent, and then you massage the udder and knock any tubercle bacilli from little tubercles that may be inside into it, and you draw it off in a concentrated mixture. I cannot imagine a better way of doing it.

Mr. HUGH BEGG: But my experience is quite different, and we made some very special experiments in that direction, and we found that the bacilli were much more plentiful in the middle milk than either the fore milk or the after-milk.

Sir STEWART STOCKMAN: Did you massage?

Mr. HUGH BEGG: Yes. After testing the last ends of the udder the bacteriologist reported that there were immensely more in three samples out of four of the middle milk than the others, which may help to show that Mr. Brittlebank's opinion is not the end of it, although I quite believe it is generally accepted.

Sir STEWART STOCKMAN: You will never get to the end of it, it is the best method of finding bacilli we are seeking.

Mr. HUGH BEGG: The bacteriologist told me that, in order that I might tell my assistant, and adopt the best time for taking the sample of milk. Some owners very much object to massaging the udder. I have been stopped.

Mr. WALLIS: In view of the fact that many of us have to leave directly, might I ask Sir Stewart if he will kindly answer Mr. Trevor Spencer's very pertinent questions?

Sir STEWART STOCKMAN: The question you refer to is whether in the absence of tubercle bacilli in milk from a suspicious udder you would be justified in saying, "Not tuberculous." No, I do not think you would. It will depend on your own opinion of the circumstances. If you think it still suspicious you can go for a further test. You must not think the microscopic examination is everything. Personally I used to be a user, where I could do it, of the harpoon method, but you would not be allowed to do that; that is a little too much to ask. I am afraid you cannot get out of the inoculation test sometimes. All I say is in every case where you can make a positive diagnosis yourself do it, and then you will be recognised as a useful man, you will save your authorities a lot of money and you will keep it in your own hands.

Mr. RENFREW: In regard to the question put and answered very fully by Mr. Brittlebank and partly by Mr. Begg, may I ask whether in every case they use the centrifuge?

Mr. BRITTLEBANK: Yes.

Mr. RENFREW: That is an operation which we as veterinary inspectors cannot be expected to do.

Sir STEWART STOCKMAN: Oh, yes; it is the simplest thing in the world.

Mr. RENFREW: The point is in many cases if we take milk from a cow at the beginning or at the middle or at the end, would we succeed in finding tubercle bacilli?

Sir STEWART STOCKMAN: I do not know if you would succeed; I cannot assist there, but you ought to find them in a huge proportion of cases.

Mr. RENFREW: We then apply for and get the permission of the owner to use the tuberculin test, and we get a positive reaction. Are we justified in saying that the cow, although affected with tuberculosis, has tuberculosis of the udder?

Sir STEWART STOCKMAN: No.

Mr. RENFREW: Then I take it that, having done all this, it is about as far as we veterinary inspectors can be expected to go. We have nothing left but to get some of the materials from the udder, either milk or matter, or whatever we can get, and send it up to be inoculated into a guinea-pig. I take it we have no alternative till we have reached that stage.

Sir STEWART STOCKMAN: I do not see any at present. It would be an awfully good thing if we could have some test to apply to milk that would help you to say whether the tubercle bacilli had been in contact or not, but such a test is not yet available.

Mr. RENFREW: I take it we can expect no help from the Board of Agriculture in carrying out this inoculation, but as you yourself have just explained, we want certainly to keep it for ourselves, and, as various other speakers have mentioned, it will be very much better for us if we could send it to the Board of Agriculture, or to the respective Colleges. The question was brought up by Mr. Malcolm, and as far as I understand has not yet been answered, with regard to cases where sanitary authorities have sent out information to districts from which milk has been received, that milk is arriving with tubercle bacilli. Perhaps the district, or even the dairy from which this milk has arrived, has been pointed out, and we are asked to make an examination. We find no cows in the herd with tuberculous udders, or anything of the appearance of tuberculous udders, but we may find if we look carefully that there is a cow, otherwise in a very good condition, with a cough. She is coughing all day long these tubercle bacilli, and consequently bacilli get into the buckets of milk from every cow in the stud. What procedure would you take in those cases?

Sir STEWART STOCKMAN: I am not sure; I would not like to give a legal opinion on that point, but I think if a cow is coughing up and throwing out mucus, and



you find tubercle bacilli in it, you might regard it as an abnormal discharge.

Mr. RENFREW: I have seen cases of encysted tuberculosis of the lungs, and on post-mortem have found that the tubercles were certainly in a very active state and that the cow was certainly coughing tubercle bacilli, yet the cow herself was in excellent condition. That may last for a considerable time.

Sir STEWART STOCKMAN: This Order is, of course only a beginning. It would be a good thing if we could take away the cows that are coughing up tubercle bacilli, but how are you going to catch them? They have tried it in Holland particularly, by collecting mucus from the throat, and they have had to give it up. But supposing you find a cow throwing out mucus and you find tubercle bacilli in it, I think you might stretch a point, and take that cow as giving an abnormal discharge. But that is a point I would rather you referred to the Board, and get the legal adviser's opinion on it, because it is a difficult one.

Mr. RENFREW: One other question with reference to cows in country districts like that in which I am situated. I oftentimes find such cows 20 miles from a slaughterhouse, *i.e.*, from a public abattoir. In these country places, especially in the county in which I am situated, the butchers are most particular; they will have nothing to do with a cow that has the appearance of being ill, because their customers would not have meat from it. In those cases what are they to do with the cow? I do not suppose Sir Stewart is responsible for this at all, but I can see that we will be placed in a very unfortunate position. Are we to do the post-mortem ourselves, and if we do, are we to skin the animal first? If it is useful for human food at all in any shape or form—that is to say if the County or Local Authority are to get any advantage out of the carcase afterwards—are we to take the trouble to skin the animal before we make the post-mortem?

Sir STEWART STOCKMAN: Surely the Local Authority will not ask you to make your own post-mortem sections?

Mr. RENFREW: My point is this, that we can get a butcher sent to the place to do it, but they will not have the animal on the premises.

Sir STEWART STOCKMAN: You have to put them where you can get them. It is not compulsory to send them to a slaughterhouse: you are only advised to do that, because there you have all the facilities, and sometimes the meat inspectors, and disinfection apparatus, and all that sort of thing; but you are not compelled to do it.

The CHAIRMAN: Mr. Arkcoll writes and asks a question which I will read. He wants to know whether a veterinary inspector will incur any liability for a wrong diagnosis.

Sir STEWART STOCKMAN: No, not under the Order. Mr. FLETCHER (Wrexham): I should like to ask if we may take it that if the Local Authority, which will probably be the police, and the owner agree that the veterinary surgeon may value, we can act as valuers.

Sir STEWART STOCKMAN: That will have to be arranged with your Local Authority.

Mr. FLETCHER: If the Local Authority are agreeable and the owner are agreeable, may we act as valuers?

The CHAIRMAN: I think we shall find in most cases that we shall have to be the valuers. We cannot call a valuer in every time, because that means expense. That is if we can agree of course.

Sir STEWART STOCKMAN: That is in the Order, No. 6. Agreement can be made with the owner.

The CHAIRMAN: If you could not agree you would have to call in a valuer.

Mr. FLETCHER: May we be appointed valuers?

Sir STEWART STOCKMAN: That I cannot tell you.

The CHAIRMAN: Do you mean, to get the valuer's fee?

Mr. FLETCHER: Whatever fee we may agree upon.

The CHAIRMAN: I think not, sir. I do not think they would stand that.

Mr. FLETCHER: There is another question in Article 7, Sub-section 2, with regard to the conclusion of the examination. Will the conclusion of the examination have to be given at the time we make the post-mortem, or will you be allowed to take smears or lesions home and make further examinations if you require?

Sir STEWART STOCKMAN: You make the post-mortems in the ordinary way. You can go home and examine your smears, as long as you do not delay it too long.

Mr. FLETCHER: And we should be entitled to be present at the post-mortem examination, even if we are not the veterinary surgeon?

Sir STEWART STOCKMAN: Yes, there is nothing against that.

Mr. CROWHURST: A gentleman asked if we could be appointed as valuers. May I point out that the local authorities do appoint their veterinary inspectors as valuers. Under the Glanders Act we are appointed as valuers, and have a fee for it. I think that ought to be known. I hope Sir Stewart will reply to the question put by Mr. Spencer—whether we should get out tuberculin from one source, and one source only, where we could rely on it. One or two gentlemen have said that the tuberculin is not reliable. That is a very important question, and I should like to ask whether it could not go forth from this meeting that tuberculin should not be in the hands of the farmers and the stewards and people of that sort. It takes from our hands a most valuable opportunity of diagnosing our cases.

The CHAIRMAN: The question of the standardisation of tuberculin shall be discussed later on. Sir Stewart Stockman has remained nearly as long as he can; he has other appointments, and I will therefore now call upon him to reply to the questions.

Sir STEWART STOCKMAN: Most of the questions I have tried to answer as they came up, but one or two have been left over and others have been duplicated. With regard to what Mr. Malcolm said, I think his question was answered when I said that this Order does not remove action under the Milk Clauses, nor will it prevent health authorities acting under any Milk Bill that may become an Act. What it does is to enable the animal to be definitely seized and dealt with under conditions which we know the agricultural man has practically agreed to.

One point that Mr. Hunting raised was that of disagreement over the lesions. But as I pointed out before, the Order is so framed that there can be no disagreement. That is to say only one man's opinion is taken, and that man has to be agreed upon by the owner and by the local authority. I may quite frankly tell you that the proposal was considered that the Board of Agriculture should act as a referee, but just think what it would have meant. It would have meant that sometimes we should have to send a man away to the other end of the kingdom to examine a carcase, and the expense would have been enormous. I do not suppose that we could deal with it even if you sent up pieces of tissue. Sometimes you do not find the tubercle bacilli in the tissue sent, but even if you could, it would require a tremendous organisation to deal in one laboratory with all the tissues that would come up for examination under this Order.

The other point that Mr. Hunting raised was with regard to the disposal of carcasses, but I pointed out that the disposal of carcasses will be left with the local authority. If they have paid for the carcasses, they can boil it to collect the fat, and sell it, and do anything of that kind, but I do not suppose for a moment local authorities will sell carcasses affected with advanced tuberculosis for human food, or even for animal food. I think we can trust to their veterinary inspectors



and health experts to tell them to do nothing of the kind.

With regard to Mr. Brittlebank's point, he rather misunderstood me, or probably I did not make it quite clear under Article 3. Notification, that an inspector had not to report. I merely mentioned that because the Board, as in this case, sometimes reproduce parts of another Order. I do not quite know what the reason of it is, but it makes it quite clear that the veterinary practitioner, if he reports a case, gets half-a-crown. It brings tuberculosis under the Notification Act, but really I do not think the Article was necessary. The point I raised was this, that it makes no mention of the veterinary inspector. I do not think we need to take him in, because his local authority will tell him to report to them. He has to report to his local authority, and in order to make it quite clear to you that the fact of him not being compelled to report under the Order would not allow any animal to escape. I said that there still remained the owner. If the veterinary inspector acting under a local authority for a Public Health Act holds an animal up, I take it that he tells the owner why he has held it up—because he suspects tuberculosis, and then I should think that that veterinary inspector, if he was not going to report it himself, would tell the owner to report. If the owner does not report, however, he is liable to be fined.

Mr. BRITTLEBANK: That quite clears it up.

Sir STEWART STOCKMAN: I either misled you or you took down wrongly what I said. It was merely to explain why the veterinary inspector had not been compelled to report under Order. We know he will report without any compulsion.

More than one questioner has asked me to give some lead as regards compensation and valuation. I do not know what lead I can give you. It seems to me that the Article is quite clear. You have an animal, let us say, valued at £20 if it is not tuberculous, and, let us say, £10 if it is tuberculous. You can read what the Board say on this point. What I take it to mean is that certain animals if they have certain forms of tuberculosis may look very well, but as dairy animals they are worth very little, and you have to value them accordingly. That is the meaning of (2) 6.

I did not quite follow Mr. Dunstan. He said they had no veterinary inspectors, but surely that is not correct.

Mr. DUNSTAN: We have veterinary surgeons acting under the police.

Sir STEWART STOCKMAN: You have no veterinary inspectors under the Board of Agriculture Act.

Mr. DUNSTAN: Not veterinary inspectors.

Sir STEWART STOCKMAN: You know the local authority is bound to appoint one.

Mr. DUNSTAN: I do not think our local authority know. The question has been raised and it is coming up at the next meeting. The question came up a short time ago, and we were told they were merely veterinary surgeons acting for the local authority.

Sir STEWART STOCKMAN: With regard to the question that has raised so much interest—whether there is a probability of tuberculin being controlled by the State, or if not how would you advise to obtain standardised tuberculin.—There have been many proposals made to the Board that they should manufacture tuberculin and distribute it. On looking round I find that quite a number of the Veterinary Colleges make tuberculin and sell it. Personally, I do not see why the Board should take it up and enter into commerce, as it were. I think it would be a very good thing to control the sale of tuberculin, and to have a standard. But, it is an awfully difficult thing, because it practically means that we would have to exclude all foreign tuberculin. I think it would be a very good thing, but the difficulty in the way of it is enormous. You have the

question of Customs and searching, and so on. But when this Order gets a little bit further on it may be found necessary to make some regulations or some arrangements about the standardisation of tuberculin and perhaps the control of the sale; but that is a very difficult thing. The argument is—if people use it fraudulently, then they should be proceeded against. That is the only way you can get at them. Everybody who has anything to do with tuberculin knows how difficult it is to prove a case. That is a very difficult point. I personally, would not use any imported tuberculin, and I will tell you why. The shopkeeper or dealer orders a quantity, and he keeps it in his place, and as a result you may not get fresh tuberculin when you order it. Whereas if you deal with a laboratory they send out active stuff. You should buy no tuberculin that does not come direct from a laboratory that you have confidence in.

The other question that particular stress has been laid on is, if the owner objects to the tuberculin test and it is needful for the purposes of diagnosis, what are we to do? The owner has the power to refuse; on the other hand you can tie his beast up for a very long time. I am afraid that is all. The same thing happens with the mallein test. We have no power to compel an owner to allow the mallein test; it must be with his consent. On the other hand you have the power to tie an animal up by notice as long as you like, and you remove that notice when he agrees to the test. How often, Mr. Hunting, have you had to threaten them over the mallein test with a notice of tying them up?

Mr. HUNTING: I think only once.

Sir STEWART STOCKMAN: I think you will not have a great deal of trouble. Then a question was asked about the best hours for taking the temperatures after injection of tuberculin. I know there is some difference of opinion on that point, but personally I have observed a reaction at the sixth hour, especially at a second test. I would not like to say that the sixth hour is necessary, but I think if I was dealing with a case I was particularly interested in I would go at the sixth hour. A lot of Mr. Lloyd's questions related to the Dairies Bill. I would be pleased to discuss them with him, but after all it is only a Bill, and I cannot discuss a Bill that is coming up in Parliament.

Mr. LLOYD: Will you give us some idea as to how we are going to find these cows that are giving tuberculous milk without any clinical symptoms?

Sir STEWART STOCKMAN: That is a very difficult business. Mr. Lloyd's question is this. Supposing you get a notice from a Health Authority that tuberculous milk is coming out of a special dairy, and you go and examine, and cannot find a single animal giving indications of having a tuberculous udder, you cannot find an animal that you think is emaciated and likely to be passing tubercle bacilli—what are you to do? They all look healthy. I do not think you get many animals in that condition giving tuberculous milk. The man who relies on the biological test, however, will be in as much difficulty as the veterinary inspector in a case of that kind, because he will not know where to begin. The way I should proceed would be as follows. Suppose you have thirty-six cows, it is an enormous thing to take the mixed milk of thirty-six cows and centrifuge it. I should divide them into sixes or fours and examine samples of four together. If I got nothing in one set I would go on to another four and so on, and then if you get it in the milk of any group of four you would have to come down to the individuals. That is the only way I can see of doing it, and it is certainly a very difficult position. Have you had many of these where you could not find a case?

Mr. LLOYD: We have had one or two cases, but in every case later on the animal showed definite symptoms of tuberculosis.



Sir STEWART STOCKMAN: How long?  
Mr. LLOYD: Three months. I have had at least half a dozen.

Mr. BRITTLEBANK: We have had a good many.  
Sir STEWART STOCKMAN: Were there immense numbers of tubercle bacilli?

Mr. BRITTLEBANK: No.

Sir STEWART STOCKMAN: I do not think these cows will do very much harm for the time, although it will do good to get rid of them as soon as possible. There is a limit to what we can do. We shall probably get rid of tuberculosis in the end, but if anyone thinks that this procedure or any other practicable method is going to exclude every single tubercle bacillus from the milk supply, he is expecting too much. (Cheers).

A vote of thanks was then unanimously accorded to Sir Stewart Stockman, on the motion of Mr. Woods, seconded by Mr. Shipley.

#### SUFFOLK VETERINARY INSPECTORS' ASSOCIATION.

A Meeting of the Veterinary Inspectors of the Joint Counties of East and West Suffolk arranged by Mr. W. M. Reeman, was held at the Fox Hotel, Stowmarket, on Monday, April 14th. There were present: Messrs. W. Shipley, R. C. Tayler, G. Kerry, H. Philips, J. Smith, Godbold Senr. and Junr., J. F. Thurston, Wm. Turtill, H. Downe, E. A. Hudson, D. Turner, W. M. Reeman, Sidney Smith.

On the motion of Mr. W. M. Reeman, Mr. W. Shipley was asked to the chair.

Letters of apology were received from Messrs. R. Godbold, A. P. Burgon, Walter Turtill, Leggett, and J. Cleveland.

It was resolved to form an Association of Veterinary Inspectors in the County of Suffolk on the same lines as the Norfolk Association.

At the unanimous wish of the members present, Mr. P. Turner, of Ixworth, accepted the Presidency of the Association, and Mr. W. M. Reeman, of Bury St. Edmunds, consented to act as Hon. Sec.

The fees payable to Veterinary Inspectors as laid down by the National Veterinary Association were considered, and it was resolved to approach the County Council by petition with a view to obtaining an increase in the fees now in existence.

After this discussion, the Clerk of the Joint Suffolk County Councils, A. Townsend Cobbold, Esq., attended the meeting, when a lengthy discussion on the objects and operations of the Tuberculosis Order of 1913 took place. The Clerk of the County Councils entered fully into the discussion with a view to lay before the Executive Committee some of the ideas and opinions expressed.

It is announced that, in view of the increased duties which have been placed upon the Local Government Board for Scotland by recent legislation, the Lords Commissioners of the Treasury have given their consent to the strengthening of the staff of the Board as from April 1st by the appointment of an additional assistant secretary, an additional medical inspector, and a veterinary inspector.—N. B. A.

#### DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended April 19	15		15				4	9	62	112	...	59	956
Corresponding week in	1912	15		16			1	3	60	92	2	76	945
	1911	21		21			8	14			2	62	838
	1910		32		35		7	8			4	18	311
Total for 16 weeks, 1913	215		232				55	184	1187	2467	110	605	7869
Corresponding period in	1912	376		426			54	126	1717	3879	149	1015	12934
	1911	320		370		1	18	67	210		289	677	7187
	1910		497		612		114	294			297	859	2887

† Counties affected, animals attacked: Durham 3, Hertford 3, London 2, Surrey 1.  
Board of Agriculture and Fisheries, April 22, 1913.

IRELAND. Week ended April 19							Outbreaks		2	8	6	14
Corresponding Week in {	1912	...	...	...	...	...	4	12	9	31		
	1911	...	...	...	...	...	...	8	8	9		
	1910	...	...	...	...	...	3	7	1	76		
Total for 16 weeks, 1913		...	...	...	...	...	77	288	46	263		
Corresponding period in {	1912	...	1	1	...	...	31	238	88	668		
	1911	...	8	8	...	1 2	36	216	44	738		
	1910	...	4	6	...	...	29	277	21	679		

† These figures include animals slaughtered and found affected on post-mortem examination.  
Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, April 21, 1913  
Norw.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

## Royal College of Veterinary Surgeons.

A Special Meeting of Council was held at the Royal College of Veterinary Surgeons, 10 Red Lion Square, W.C., on Tuesday, April 22nd. There were present:—Prof. A. E. Mettam in the chair. Messrs. Banham, Barrett, Garnett, Sir John M'Fadyean, Messrs. Mulvey, Price, Maj.-Gen. Pringle, Prof. Shave, Mr. Slocock.

The minutes of the previous special meeting of Council were read and confirmed.

The SECRETARY announced that apologies for absence had been received from Dr. Bradley, Messrs. Carter, Clarkson, Dunstan, McKinna, Mason, Shipley, and Sir Stewart Stockman.

### ALTERATION OF BYE-LAWS.

Mr. GARNETT moved, Sir JOHN M'FADYEAN seconded, and it was resolved that the amended bye-laws 1 to 111, passed at a special meeting of Council held on April 11th, 1913, be confirmed.

### PARLIAMENTARY.

#### PRIVATE MEMBER'S BILL.

In the House of Commons on Monday, April 21.

The following Bill was presented and read a first time:—

By Mr. CHANCELLOR (Haggerston, Min.), a Bill to provide for the abolition of vivisection.

GOVERNMENT PUBLICATIONS.—Poison (England and Scotland) Order, No. 329, 1½d.; Cruelty to Animals Bill, 2d. Publishers: Messrs. Wyman & Sons, Ltd., Fetter Lane, London, E.C.

### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, April 17.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

J. W. Tait to be Lieut. Dated March 31.

April 22.

SPECIAL RESERVE OF OFFICERS.

ARMY VETERINARY CORPS.

Lieut. J. Rae is confirmed in his rank.

### Personal.

A very pretty wedding was solemnised on Wednesday afternoon afternoon, April 9th, at All Saints' Church, Ipswich, the contracting parties being Mr. Alfred Frank Castle, F.R.C.V.S., a Lieutenant in the Army Veterinary Corps (Territorial), son of Mr. William Alfred Castle, Southtown, Great Yarmouth, and Miss Daisy Kathleen Phillips, daughter of Mr. and Mrs. Henry Phillips, of Holly Lodge. The church was crowded, for both bride and bridegroom are well known. The bride is the daughter of the popular Captain and Commandant of the local corps of Frontiersmen, and the bridegroom is with him in the veterinary business.

The bride was given away by her father. She carried a beautiful bouquet of white roses and lilies of the valley, and was attended by three bridesmaids, Miss Gladys Gillett, Miss Muriel Castle, and Miss Iris Castle (cousin of the bridegroom). They carried bouquets of yellow marguerites and asparagus fern, and wore

amethyst and gold brooches, both the gifts of the bridegroom. The best man was Mr. Leonard Castle, brother of the bridegroom. The service which was fully choral, was taken by the Rev. S. W. Key (vicar of All Saints'), assisted by the Rev. W. E. Fletcher (rector of St. Matthew's). As the newly-married pair left, Mendelssohn's Wedding March was played.

After the ceremony a reception was held at Holly Lodge, and later Mr. and Mrs. Castle left for their honeymoon.—*Suffolk Mercury and Chronicle*.

### OBITUARY

JAMES MCGAVIN, M.R.C.V.S., Arthur St., Montgomery. Graduated, Glas: April, 1869.

Mr. McGavin practised in St. Austell, Cornwall, for a short time, and afterwards settled in Montgomery. He retired in 1910 after a serious illness, but continued in good health till three weeks ago, when he contracted a severe form of influenza, to which he succumbed, passing peacefully away on Sunday evening, April 20th, in his 71st year. He leaves a daughter to mourn his loss.

Mr. McGavin was one of the original members of the "National," and was a well-known figure at the annual meetings, which he attended regularly while health permitted.

### CORRESPONDENCE.

#### THE TUBERCULOSIS ORDER.

Sir,

Will you kindly allow me a small space in which to apologise to those gentlemen who have written to me, with suggestions or asking for information, with regard to the Tuberculosis Order, and to many of whom I have found it impossible to reply owing to the large amount of work which the arrangements for meetings, etc., has entailed.

The Executive Committee, entrusted with the work of preparing a scale of suggested fees, etc., held a meeting in Birmingham on Monday last and, as will be seen from your advertisement columns, the reports of this Committee will be submitted at a special general meeting to be held at the Holborn Restaurant, W.C., on Wednesday the 30th inst. May I appeal to all Veterinary Inspectors to make every effort to attend this meeting. It means, of course, leaving our ordinary vocation for one day, at an extremely busy time of year, but it is hoped that this will not be allowed seriously to interfere with the attendance, seeing that there will be hundreds of days in our future lives when we shall have cause to bless the council of war we held on the eve of the biggest campaign we have ever been called upon to fight.—Your obedient servant,

TREVOR F. SPENCER, Hon. Sec. (*pro tem*.)

Kettering, April 22nd.

#### VETERINARY INSPECTORS TO DEFEND?

Dear Mr. Editor,

A Veterinary Inspector has been asked by a Local Authority if he will accept the responsibility of an action at law and defend the same at his own cost, in carrying out the Tuberculosis Order.

Is it contemplated that the Veterinary Inspectors are expected to accept such a position?—Yours faithfully,

April 23. I. O. U.

### Veterinary Societies Addresses.

#### COLONIAL SOCIETIES (continued next page)

VETERINARY ASSOCIATION OF NEW SOUTH WALES.

Pres: Mr. S. T. D. SYMONS, M.R.C.V.S., Chief Insp. of Stock V. Pres: Major A. P. Gribben, F.V.O., M.R.C.V.S.

Hon. Sec. & Treas: Mr. MAX HEALY, M.R.C.V.S., B.V.Sc. (SYD).  
56 Bridge Street, Sydney

**NATIONAL VETERINARY ASSOCIATION**

*Pres.* Mr. William Hunting, F.R.C.V.S.  
*Sec.* Mr. William Hunting, F.R.C.V.S., London, S.W.  
*Treas.* Prof. G. H. Woodbridge, F.R.C.V.S.,  
 Ryl. Vet. Coll., Camden Town N.W.

**Northern Branch:**

*Pres.* W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* A. W. Noel Pillers, (F)  
 74 Smithdown Lane, Liverpool

**LANCASHIRE V.M.A.**

*Pres.* Mr. G. H. Locke, M.R.C.V.S.,  
 Grosvenor-street, Manchester  
*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
 Town Hall, Manchester

*Hon. Treas.* Mr. E. H. Stent, M.R.C.V.S., Preston-st, Hulme  
*Meetings*, 1st Thursday in April, June, Sept., & Dec.

**LIVERPOOL UNIVERSITY V.M.S.**

*Pres.* Mr. J. T. Share-Jones, F.R.C.V.S., University, L'pool.  
*Hon. Sec.* A. Richardson, M.R.C.V.S., 111 Arundel Av., L'pool.  
*Pathological Sec.* Mr. D. C. Matheson, F.R.C.V.S.

*Meetings*, May, July, October, January.

**MIDLAND COUNTIES V.M.A.**

*Pres.* Mr. J. Martin, M.R.C.V.S., Wellington, Salop  
*Hon. Sec.* Mr. H. J. Dawes, F.R.C.V.S.,  
 Camden House, High-st., West Bromwich  
*Meetings*, Second Tuesday, Wednesday, Thursday, and  
 Friday alternately in Feb., May, Aug. and Nov.

**NORTH OF ENGLAND V.M.A.**

*Pres.*  
*Hon. Sec.* T. T. Jack, M.R.C.V.S., 8 Elmwood Ter, Sunderland  
*Meetings*, Third Friday, Feb., May, Aug. and Nov.

**NORTH WALES V.M.A.**

*Pres.* Mr. F. Booth, M.R.C.V.S., Colwyn, Denbighshire  
*Hon. Sec.* Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings*, First Tuesday, March and September

**SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.**

*Pres.* Mr. W. Awde, F.R.C.V.S., Stockton-on-Tees.  
*Hon. Sec. & Treas.* Mr. J. H. Taylor, F.R.C.V.S.,  
 Grange Road, Darlington  
*Meetings*, First Friday, Mar., June, Sept. and Dec.

**YORKSHIRE VET. ASSOCIATION**

*Pres.* Mr. J. Abson, F.R.C.V.S., Norfolk Street, Sheffield  
*Hon. Sec.* Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds  
*Hon. Treas.* Mr. A. McCormick, M.R.C.V.S.,  
 Kirkstall-road, Leeds

**Southern Branch:**

*Pres.* Sir Stewart Stockman, 4 Whitehall Place, S.W.  
*Sec.* T. C. Toope, 34 High Street, Dover

**CENTRAL V.S.**

*Pres.* Mr. J. W. McIntosh, M.R.C.V.S., 14 Templar-street,  
 Myatt's Park, S.E.

*Hon. Sec.* Mr. H. A. MacCormack, M.R.C.V.S.,  
 122 St. George's Avenue, Tufnell Park, N.  
*Meetings*, First Thursday in each month, except August  
 and September, 10 Red Lion Square, Holborn, at 7 p.m.

**EASTERN COUNTIES V.M.A.**

*Pres.* Mr. J. B. O. Taylor, M.R.C.V.S., Westn Longueville,  
*Hon. Sec. & Treas.* Mr. Sidney Smith, Junr., M.R.C.V.S.,  
 37 High Street, Lowestoft  
*Meetings*, Second Tuesday, Feb., July and Sept.

**LINCOLNSHIRE V.M.S.**

*Pres.* Mr. C. W. Townsend, F.R.C.V.S.,  
 Long Stanton, Cambridge  
*Hon. Sec. & Treas.* Mr. Tom Hicks, M.R.C.V.S.,  
 Boston Road, Sleaford  
*Meetings*, Second Thursday Feb., June, and October

**ROYAL COUNTIES V.M.A.**

*Pres.* Mr. David Wyllie, M.R.C.V.S., Tudor House, Staines  
*Hon. Sec. & Treas.* Mr. G. P. Male, M.R.C.V.S., Reading  
*Meetings*, Last Friday, Jan., April, July and Nov.

**SOUTHERN COUNTIES V.S.**

*Pres.* Mr. G. H. Livesey, M.R.C.V.S., Hove, Sussex  
*Hon. Sec.* Mr. J. Alex. Todd, M.R.C.V.S., Worthing  
*Hon. Treas.* Mr. E. W. Baker, M.R.C.V.S., Wimborne  
*Meetings*, Last Thursday, Mar., June and Sept.

**SOUTH EASTERN V.A.**

*Pres.* Mr. James Crowhurst, F.R.C.V.S., Canterbury  
*Hon. Sec. & Treas.* Mr. Theo. C. Toope, M.R.C.V.S.,  
 84 High Street, Dover  
*Meeting*, Second Wednesday in May; Maidstone

**WESTERN COUNTIES V.M.A.**

*Pres.* Mr. C. E. Perry, F.R.C.V.S., Staple Hill, Bristol.  
*Hon. Sec.* Mr. W. Ascott, M.R.C.V.S., Bideford  
*Hon. Treas.* Mr. F. G. Bond, M.R.C.V.S., Plymouth  
*Meetings*, Third Thursday, March, July and November

**Irish Branch:**

*Pres.* Mr. W. Watson, Municipal Buildings, Dublin  
*Sec.* Mr. P. D. Reavy, Leasheid, Bundoran, Co. Donegal

**CENTRAL V.A. OF IRELAND.**

*Pres.* Mr. B. P. J. Mahony, M.R.C.V.S., Maryborough  
*Hon. Sec.* Mr. E. C. Winter, F.R.C.V.S., Queen-st., Limerick  
*Treas.* Mr. J. F. Healy, M.R.C.V.S., Middleton

**CONNAUGHT V.M.A.**

*Pres.* Mr. D. Hamilton, M.R.C.V.S., Ballina  
*Hon. Sec. & Treas.* Mr. A. J. Moffett, M.R.C.V.S., Galway

**VET. MED. ASSN. OF IRELAND.**

*Pres.* Mr. F. J. Howard, M.R.C.V.S., Ennis  
*Hon. Sec.* J. J. O'Connor, M.R.C.V.S., R.V. Coll., Dublin  
*Hon. Treas.* Prof. J. F. Craig, M.A., M.R.C.V.S.,  
 R.V. Coll., Dublin

**NORTH OF IRELAND V.M.A.**

*Pres.* Mr. J. A. Jordan, M.R.C.V.S., Belfast  
*Hon. Sec.* Mr. E. Ewing Johnston, M.R.C.V.S., Belfast  
*Hon. Treas.* Mr. J. A. Thompson, F.R.C.V.S., Lurgan

**Scottish Branch:**

*Pres.* Dr. O. Charnock Bradley, } Ryl. (Dick) V et.  
*Hon. Sec.* Prof. A. Gofton, } Coll: Edinburgh

**NORTH OF SCOTLAND V.M.S.**

*Pres.* Mr. W. Marsden, M.R.C.V.S., Banff  
*Hon. Sec. & Treas.* Mr. G. Howie, M.R.C.V.S., Alford, Aberdeen  
*Meetings*, Last Saturday in January and August

**ROYAL SCOTTISH V.S.**

*Pres.* Mr. Reid, M.R.C.V.S., Auchtermuchty.

**SCOTTISH METROPOLITAN V.M.S.**

*Pres.* Mr. P. Wilson, M.R.C.V.S., Lanark  
*Hon. Sec.* Mr. Jas. Henderson, M.R.C.V.S.,  
 Public Health Dept., City Chambers, Edinburgh

**WEST OF SCOTLAND V.M.A.**

*Pres.* Prof. John B. MacCall, M.R.C.V.S., Vety. Coll. Glasgow  
*Hon. Sec.* Mr. J. F. Macintyre, M.R.C.V.S.,  
 19 Bank Street, Hillhead, Glasgow  
*Hon. Treas.* Mr. Geo. W. Weir, M.R.C.V.S.,  
 88 Crookston Street, Glasgow  
*Meetings*, Second Wednesday, May, Oct. and January.

**COLONIAL SOCIETIES: (see preceding page)****BRITISH COLUMBIA V.M.A.**

*Pres.* Dr. Gibbons, M.R.C.V.S., Vancouver,  
*Hon. Pres.* Dr. Hamilton, M.R.C.V.S., Victoria.  
*Sec., Treas., Registrar.* Dr. T. Jagger, V.S., Vancouver.

**CAPE OF GOOD HOPE V.M.S.**

*Pres.* Mr. J. D. Borthwick, M.R.C.V.S., Cape Town  
*Hon. Sec. & Treas.* Mr. R. W. Paine, F.R.C.V.S.

**CENTRAL CANADA V.A.**

*Hon. Sec.* Mr. A. E. James, Ottawa  
 VET. ASSN. OF MANITOBA.

*Pres.* Dr. W. R. Taylor, Portage la Prairie  
*Hon. Sec. & Treas.* Dr. F. Torrance, Winnipeg

**NATAL VETERINARY MEDICAL ASSOCIATION.**

*Pres.* Mr. H. Watkins Pitchford, Govt. Bacteriologist,  
 Pietermaritzburg  
*Hon. Sec. & Treas.* Mr. J. B. Collyer,  
 Vety. Inspector Natal Police, Pietermaritzburg

**ONTARIO V.A.**

*Pres.* Mr. J. H. Tennent, V.S., London, Ontario  
*Sec. & Treas.* Mr. C. H. Sweetapple, V.S., Toronto, Ontario

**TRANSVAAL V.M.A.**

*Pres.* Mr. C. E. Gray, F.V.S., Box 154, Pretoria.  
*Hon. Sec.* Mr. P. Conacher, V.S., Box 877, Johannesburg

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1295.

MAY 3, 1913.

VOL. XXV.

## Colonel Charles Steel.

The death of Colonel Steel at Bedford last week will cause keen regret to many in the profession. He was 84 years of age, and until the last few months a marvellously hale and hearty old gentleman. He obtained his diploma in 1851, and was among the foundation Fellows elected in 1877. For some years after retiring from the Army Colonel Steel lectured on Veterinary Science at the Yorkshire Agricultural School. He took great interest in the National Veterinary Association and was a regular attendant at the annual meeting. His last appearance was at Carnarvon, where he distinguished himself by walking up the hills with men half his age, and apparently without fatigue. He was a good speaker at a scientific meeting, being always well-informed, expressing himself concisely and lucidly. His after-dinner speeches had the same character but were seasoned with a sparkling humour. He was the father of the late Professor John Steel, who died in India many years ago.

## THE "NATIONAL" MEETINGS.

The arrangements for this year's "National" meetings are now well advanced. The meetings will be held at the rooms of the Royal Society of Arts, Adelphi, London, on Tuesday and Wednesday, July 29th and 30th. The hours of meeting on both days will be 10 a.m. and 2 p.m.

A strong programme of papers has been arranged. The opening one will be upon "The Form of the Foot of the Shire Horse," by Dr. Griffiths, of Cambridge; and this will be followed in the afternoon by "Do we need a new Degree?" by Mr. Henry Gray. On the second day the morning and afternoon papers respectively will be by Mr. G. H. Livesey upon "Gastric and Intestinal Diseases in the Dog," and by Mr. G. P. Male upon "The Milk and Dairies Bill." A variety of widely different interests are thus included, and there is certain to be no lack of discussion.

The annual dinner will be held upon the evening of the 29th, at 7 p.m. Tickets will be 10/6 each, exclusive of wines; and, as usual, ladies will be invited. Further details will appear in due course, but, at this early date, we can safely predict that the next meeting of the "National" will be as successful as ever.

## THE R.C.V.S. DINNER.

The Council, for reasons which we can all appreciate, have once more declined to hold an official dinner of the R.C.V.S. A dinner, however, is being arranged, and will be held on the evening of Wednesday, June 4th, the day of the Annual General Meeting. It will take place at the Trocadero; tickets will be 10/6 each, exclusive of wines; and after dinner there will be a short musical programme and a shorter toast list. So far, the function will follow the usual lines of the unofficial dinners which have been held on this day for several years, but there will be one important innovation. Ladies will be invited, and, though their presence is now commendably frequent at the social functions of professional associations, it will be their first appearance at any dinner in connection with our Annual General Meeting. We hope to see them appear in good numbers, and establish themselves as a permanent institution at future dinners on the same day. When better times come for the R.C.V.S. the Council will no doubt resume their official Annual Dinner.

The present unofficial ones will perhaps do more than keep the old function alive in the meantime; they may popularise and re-vivify it, and the introduction of ladies will be a powerful aid in doing so.

## AN OBJECT LESSON.

One point in veterinary preventive legislation, which is especially well illustrated by the Tuberculosis Order, seems worthy of brief mention. All such legislation educates the stockowner with regard to the particular disease it concerns. But it may also have a broader educational effect, by illustrating the difficulties of diagnosis of disease in general. We have always advocated that veterinary surgeons should endeavour to enlighten owners as to the difficulties of diagnosis; and we know that many practitioners are now not afraid to reveal diagnostic uncertainties to their clients. Sometimes this leads to difficulties, for not a few owners still favour the old practice of a positive diagnosis after a single clinical examination. It may be useful to point out to these how constantly the law recognises, in dealing with the diagnosis of scheduled disease, that one clinical examination cannot be expected to reveal everything. We have many examples to cite; and perhaps the Tuberculosis Order, with the frequent microscopic examination of milk and discharges it will entail, is the most convincing of all. That is a small point; but it may be expanded into a useful object lesson for the benefit of some clients.



## RECTAL EXAMINATION.

The benefits to be derived from the rectal examination of horses showing abdominal pain have been brought rather prominently before my notice of late, and I think the following four cases—all of which occurred within the last 3 months—are of interest and importance more especially to those practitioners who are of opinion that little or no benefit can be obtained from it.

*Case I.* An aged van gelding, subject to periodic attacks of colic. When first called to attend we were informed that he had been showing slight abdominal pains off and on for over 12 hours. On examination, pulse and temperature were normal, but there was persistent pressing and rubbing of the tail and hindquarters against the sides of the box. Linseed oil had been administered as a purgative; stimulants were prescribed, and given at regular intervals.

The following day, no movement of the bowels having taken place, a rectal examination was made, when a large tear, at least 8 inches long (through the mucous and muscular coats) was found to exist—so wide was it that it took in the closed fist.

Treatment was attempted by means of antiseptic and saline irrigations, but death subsequently took place from Septic Peritonitis following perforation.

The case was one of malicious injury, but although a searching police investigation was immediately made the culprit could not be traced.

*Case II.* Requested, by phone, to make a post-mortem examination of a young (valuable) Clydesdale gelding which had died rather suddenly after his day's work.

On opening the abdomen, inflammation of the Peritoneum was noticeable, and on the intestines being removed one of the Iliac veins was found ruptured.

On looking over the bowels a small dark patch was observed which on closer inspection was found to be a puncture, this was followed up and the bowel slit open up to the anus. The inside was most severely lacerated and mutilated. Bearing the previous case in mind, investigation was immediately instituted and the carter was found to be the culprit. A stob of hard wood 2 inches thick and 4 feet long was the ugly weapon he had used.

*Case III.* An aged brown cart mare. History given was that during the early morning and forenoon she had suffered from an acute attack of colic. Two stimulants in oil had been administered, after which she had settled down all right. Within the subsequent two or three hours, slight uneasiness was again apparent and the horsekeeper thought it risky to leave her overnight without being seen to professionally.

On examination the pulse was good, the bowels had acted normally; there was no definite symptoms of serious illness but the opinion expressed was guarded.

General directions were given as to dieting, etc., and an alkaline stomachic prescribed.

Just on leaving, she went round the box twice—the first pains shown since I had come—I then

decided to examine per rectum; whilst inserting my hand pain was acute, and I thought the parts rather full and protruding. The box being rather dark, extra light was procured, and sure enough, the vulva and perineal region were greatly swollen. On opening up the labia, the mucous membrane of the vagina was found to be enormously engorged and showing dark necrotic-like patches.

The explanation—which was given very reluctantly by the attendant—was that during the attack of colic in the morning coarse salt had been rubbed into the vagina "to make her stale."

*Case IV.* An aged pony, in rather fat condition. The history given was that he had been in regular hard work for some time and thriving well, until the previous afternoon, when he had taken a severe "shivering fit" at work. By the time he arrived home, however (12 miles) he was apparently completely recovered and had cheerfully eaten his supper. The following morning when seen by the owner he appeared dull—was said to be blowing, for which his sides were blistered with mustard.

When I was asked to look at the case, about five in the evening, I found it in charge of an out-of-job gamekeeper, who had evidently doctored and drenched—with the assistance of other local experts (?)—to their hearts' content.

On examining the patient I found him in a dying condition, apparently from hæmorrhage. As I could not make out the cause, I finally resorted to exploration per rectum, and soon discovered that the before-mentioned gamekeeper had forestalled me in his investigations.

He explained to me then that finding the bowels full and lying too far back, and to him apparently closed up forming a pouch, he had therefore made a passage by forcing his hand clean through the rectum and tearing it away from its pelvic attachment. His lubricant was treacle, and his only regret was that he had been unable to procure an enema pump. If he had been successful in his search I suppose he would simply have filled the abdominal cavity with treacle water.

I had the animal destroyed and put out of any further suffering.

DUNCAN MACLEOD.

Veterinary College, Glasgow, April 19th.

THE BACTERIOLOGICAL INVESTIGATION OF EQUINE INFLUENZA (SO-CALLED), WITH A SHORT NOTE OF ONE CASE OF "MIXED" PNEUMONIA TREATED BY AUTOGENOUS VACCINE.

At the beginning of November of last year, a firm of contractors had nine horses (in various stages suffering from the clinical form of influenza—coughs, catarrhal discharge (nasal), temperatures. Five were severely affected, the remaining four but slightly. One horse developed acute lobar pneumonia, and was treated with vaccines.

Purile matter was taken from each of the five horses by means of a sterilized compressed pledget of cotton wool fixed on a sterile wire and inserted



some four to six inches up the nostril; through the other end of the wire a cork was passed. The pledget was placed in a sterile tube, the cork being fixed into the mouth and each tube marked. The contents of each tube was examined, as follows: A little pus was taken and placed on a clean slide and another slide placed upon it, gently glided and slid apart. The films thus obtained are dried and fixed by heat in the usual way. One is then stained by Gram's method and counter stained by Carbol-fuchsin (dil.), washed, dried and mounted; the other by undiluted Carbol-fuchsin.

Streptococci were found in all five, staphylococci in one, the diplococci of pneumonia in three.

Five agar tubes (sloped) were inoculated, one from each specimen, and incubated at 37° C.; in like manner five gelatine tubes were treated and inoculated at room temperature about 20° C.

After 24 hours incubation the agar tubes showed very tiny colonies almost colourless in four—pneumococcus. Five—similar colonies but more opaque, particularly in the centre—streptococcus. One—large opaque colonies with yellow tinge and with tendency to spread in circumference as they get older—staphylococcus.

All three gelatine tubes showed numerous colonies, discrete, opaque, and fairly large after 12 hours growth.

Examination by 0.1 lens showed the microbe to be diplococcus which was Gram negative.

I have never come across this microbe before, but perhaps it is known to others. In human bacteriology three well known diplococci are recognised which are Gram negative—Gonococcus, Meningococcus, and M. catarrhalis.

This microbe growing in gelatine at room temperature and being Gram negative, while having as its *habitat* the respiratory tract, coincides with the micrococcus catarrhalis of man. Micro. catarrhalis grown in serum agar, show opaque colonies and very tough.

A further culture was made some days later of the case which developed pneumonia when streptococci: pneumococci: micrococcus catarrhalis (*sic*) were plated out and subcultured and a separate vaccine made of each. The first dose was as follows: Streptococci 150,000,000; Pneumococci 500,000,000; M. catarrhalis 500,000,000.

From clinical observations the negative phase was very pronounced and lasted fully 24 hours. The temperature rose two degrees, the respiration increased and pulse beat went up from 65 to 83 per minute. The temperature then fell during the next 48 hours, three degrees in the positive phase. Five days later from the first injection, another dose of vaccine was administered, the dose being exactly doubled. Four days later a third injection was given containing doses three times more than first dose. Recovery from this date was now assured.

Bridgwater. W. M. SCOTT.

A white ewe, the property of Mr. Thomas Connor, Terrydremond, Limavady, has given birth to five fine, healthy lambs. In 1912 the same ewe dropped five, and in 1911 four, making fourteen in three years.—*The Derry Standard*.

#### PNEUMATHORAX IN COW CAUSED BY ECHINOCOCCUS

CYST IN THE LUNGS.—Communicated in Esperanto by Dr. N. FOSS, Govt. V.S., Ufa, Russia, and translated by Dr. W. T. KENDALL, M.R.C.V.S., University Vety. School, Melbourne, Australia.

The cow had been ill a fortnight, and was depressed and had a very poor appetite, and gave very little milk. In the region of the right scapula an emphysematous swelling appeared. On examining the lungs I found that there was pneumothorax on the right side, and careful manipulation revealed a hole in the intercostal muscles and another in the region of the right kidney, both holes being covered by uninjured skin. A fortnight before the animal was killed the emphysema had extended over the whole body. Probably these hernial openings had existed for some time. The right lung had ceased to functionate, but the left was quite normal. The temperature was 38.4° C. In the region of kidneys there were two large air vesicles, and on the right side the kidney fat was blown up with air which had penetrated the tissue.

As there was an absence of any foreign body in the lungs I had to search very carefully for the cause of the pneumothorax. In the lungs I discovered a number of echinococcus cysts one of which, near the right margin, had burst and allowed the air to escape from the lung. It was evident that the air which escaped from the lung entered the parietes of the chest where the ruptured vesicle was found and where destruction of tissue from pressure had occurred. During inspiration air had been pumped through the opening, and the emphysema spread by the respiratory movements along the subcutaneous tissue till it reached the opening in the region of the right kidney.

#### TENTH INTERNATIONAL VETERINARY CONGRESS, LONDON, 1914.

##### SECOND LIST OF SUBSCRIPTIONS AND DONATIONS TO THE FUND.

Since you published my last list dated Nov. 26th, 1912, I have received the following additional promises and payments.

The following errors appeared in my previous list:—The late Ed. Faulkner's donation should not have been included, it appears in the present list. J. Clarkson should read M. Clarkson, and Wm. Shipley, Royal Counties should read £10 10s.; and Eastern Counties £21. Sir John M'Fadyen's list of ten subscribers of £100 each is seven as per his letter to me dated 3rd Dec., 1912.

As I am still nearly £700 short of the minimum we considered necessary to successfully carry through the work of the Congress, I must appeal once more to all those who have not yet subscribed, to do so at once—the subscriptions may be now divided into two portions if this is more convenient to subscribers.

I shall be greatly obliged to anyone calling my attention to errors in the list. Prof. Wooldridge has, in addition to subscription, guaranteed £2 2s., and I shall be pleased to receive guarantees against any contingent loss there may be on the Congress, in addition to subscriptions.

FRANK W. GARNETT, Hon. Treas.  
Dalegarth, Windermere.



Paid. £ s. d.	Promised. £ s. d.	£ s. d.			
Per Sir John M'Fadyean :			0 10 6	McCall, J. McI.	5 0 0
52 10 0 Bond, P. G., per			2 2 0	Baker, W. E.	0 10 6
Western Co. V.S.	105 0 0		2 2 0	Penhale, R. E. L.	4 4 0
Cooper, Sir R.	100 0 0		10 10 0	New Zealand Govt. per A. Crabb	10 10 0
100 0 0 Faulkner, E., late	100 0 0		2 2 0	Barrett, W. F.	2 2 0
100 0 0 M'Fadyean, Sir J.	100 0 0		10 10 0	Davies, D. G.	10 10 0
100 0 0 Price, T. S.	100 0 0		2 2 0	Auger, T. E.	3 3 0
50 0 0 Roberts, R. & Son	100 0 0		3 3 0	Tutt, J. B.	3 3 0
50 0 0 Sewell, A. J.	100 0 0			Wynne, J. H.	3 3 0
Sheather, C.	100 0 0		10 0 0	Irish Central V.M.A., per J. F. Healy	10 0 0
Stephenson, C.	100 0 0		5 0 0	Healy, J. F.	
50 0 0 Trigger, R. C.	100 0 0	1005 0 0		Vet. Staff, Southern Rhodesia, per J. M. Sinclair.	
Central V.S. per H. A. MacCormack :				Bevan, L. E. W.	1 1 0
5 5 0 Foreman, R. J.	10 10 0			Chatterley, D. C.	1 1 0
3 3 0 Stewart, D.	3 3 0			Edmonds, C. R.	1 0 0
Gosling, J. A.	5 5 0			Ferguson, J. D.	1 1 0
Philp, R. A.	2 2 0			Idle, J. B.	1 1 0
Macdonald, J. F.	1 1 0			Kingcome, M. H.	1 1 0
2 2 0 Jones, H. D.	2 2 0			Middleton, E.	1 1 0
Willett, J.	5 5 0			Myhill, B. A.	1 0 0
McIntosh, J. W.	5 5 0			Vet. Staff S. Rhodesia	8 6 0
Gordon, G.	3 3 0			Pinchin, G.	1 0 0
Reynolds, E. B.	10 0 0			Hooper-Sharpe, G. C.	1 0 0
Perryman, W.	2 2 0			Sinclair, J. M.	1 1 0
2 2 0 Sampson, F. G.	2 2 0		13 9 0	Williams, Rowland	1 1 0
Catmull, E. J.	2 2 0			White, J. M.	1 1 0
Neish, A.	3 3 0				
Howard, P. S.	5 5 0		6 0 0	Gooch, F. L.	13 9 0
Willett, F. W.	10 10 0		2 2 0	Williams, G. H.	10 0 0
Wooldridge, G. H.	3 3 0		5 5 0	North of Ireland Vet. Soc. per J. A. Thompson	5 5 0
3 3 0 Wall, R. F.	3 3 0			Elder, W. A., Swaziland, S. Africa	5 5 0
Willis, W.	5 5 0		1 1 0	Mayall, G.	1 1 0
Payne, A. E.	3 3 0		1 1 0	Marston, Alf. (Buenos Aires)	1 1 0
			5 5 0	Roach, Wm.	5 5 0
2 2 0 Hunting, Wm.				Parker, T. M.	15 15 0
3 3 0 Almond, N.			2 2 0	Barron, R.	2 2 0
2 2 0 Sampson, G. E.			2 2 0	Woolston, P.	2 2 0
5 5 0 Macqueen, J., Prof.	5 5 0	92 19 0		Dept. Ag. and Fisheries, Ireland, per F. W. Emery.	
Scottish Met. V.S. per J. Henderson.				King, W. Ashe	1 1 0
5 5 0 S.M.V. Met. Society	5 5 0			Munro, Alxd.	1 1 0
2 2 0 Baird, Alex.	2 2 0			Jones, J. H.	0 10 6
0 10 6 Anderson, Wm. (Fife)	1 11 6			Elkins, W. E.	0 10 6
1 1 0 Inglis, T. M.	2 2 0		5 5 0	Emery, F. W.	2 2 0
1 1 0 Gofton, Prof.	5 5 0				
1 1 0 Doughty, W. A.	1 11 6			Lincolnshire Vet. Med. Soc.	
0 10 6 Robson, H. W.	1 11 6		3 3 0	Routledge, R. A.	3 3 0
1 10 0 Young, T. P.	1 10 0			Lalor, A. D.	3 3 0
1 1 0 Nairn, Wm.	1 1 0			Grasby, W. W.	3 3 0
1 1 0 Wilson, A., Prof.	1 1 0			Lockwood, G.	3 3 0
1 11 6 Wilson, Peter	1 11 6			Rudkin, T. A.	3 3 0
0 10 6 Riddoch, J.	0 10 6			Sugden, J. W.	3 3 0
0 10 6 Henderson, J.	0 10 6	25 13 0	5 5 0	Townsend, C. W.	3 3 0
				Truman, H. H.	5 5 0
0 10 6 McKenny, J.	0 10 6				
0 10 6 Holland, J.	0 10 6			North of Scotland V.S. per G. Howie :	
2 0 0 Anderson, Wm. (Keith)	6 0 0		1 1 0	N.S.V.M.S.	
3 3 0 Rimmer, R.	3 3 0		10 6	McPherson, Wm.	
32 0 0 North Wales V.M.S. per R. Jones	32 0 0		10 6	Murray, J.	
0 10 6 Clarkson, M. (Reeth)			10 6	Cumming, D.	
3 6 8 Jones, T. Eaton	10 0 0		10 6	Brown, Wm.	
5 0 0 Ascott, Wm.	10 0 0		1 11 6	Marsden, W. J.	
1 1 0 Townson, H. W., Falkland Isls.	1 1 0		10 6	Howie, Geo.	
5 0 0 Liverpool University Vet. Soc. per A. Richardson	15 0 0		10 6	Marshall, Wm.	1 11 6
5 5 0 Wartnaby, Geo.	5 5 0		10 6	Kerr, A.	1 11 6
5 5 0 Gibbings, G. H.	5 5 0		10 6	Hepburn, Wm.	1 11 6
1 1 0 Pollock, J. W.	1 1 0		10 6	Crabb, D. Senr.	1 11 6
10 10 0 Bloye, W. H.	31 10 0		10 6	Crabb, D., Junr.	1 11 6
1 1 0 Penhale, W.	1 1 0		2 2 0	Thompson, J.	2 2 0
5 5 0 Spencer, Trevor	10 10 0		10 6	Sievwright, A.	1 11 6
5 0 0 Shave, Prof.	10 0 0		10 6	Sinclair, G.	1 11 6
					13 2 6



In a communication dated 6th April, 1900, to the I.G. of Remounts, War Office,\* he showed signs of hedging: "Consensus of opinion was rather against the Argentine's pluck before this march (Modder-Bloemfontein) that opinion was weakening, and I heard several C.O.'s say they had done well; of course they have had a very high trial carrying cavalry, and they are undoubtedly slow; but it is the only beast to be got in sufficient numbers, so I hope you will not reduce the importations unless something better is found . . . ." In July, 1900, his report on Argentines is that they are good for slow work, soft hearted, no manners, incapable of effort, and generally condemned.† In December, 1900, he reports, "No one who has seen the Argentine at the front has a good word to say for him except the 10th Hussars."‡ We are not here concerned with the suitability of the Argentine or other oversea remount; the sentence above placed in italics by us conveys the lesson which the transcript of this correspondence is intended to show. How far it was wide of the truth is now well known. Seventeen months after the above letter was written is another bearing date 20th September, 1901,\*\* in which the following occurs:—"Those Yankee M.I. cobs that have been coming for M.I. are the best we can give them next to colonials, which are running very short these times . . . ." We have italicised the words which indicate the change of opinion, and now place the colonial animals in a premier position.

The case for the Colonial horse may thus be stated. We knew he was ridden by an enemy that we could not catch; that he was a hardy, in some essential respects a disease-proof animal; his life had been largely spent in the open, and limited fare had rendered him both economical in its use and an excellent forager. He was docile, handy and wiry, but was small and frequently plain; he was light both in body and limbs, which gave the impression perhaps that he was not up to the weight of a British soldier, though he carried a man whose body weight was greater than that of the average mounted man. It is true that he had little else to carry but that man. The paraphernalia we place on our horses backs is unknown to the mobile Dutchman, and it may well be that the inability to find room on the back of the colonial pony for the carriage of these sore-back-producing impedimenta, may have influenced the selection of the Argentine as producing a bigger animal. Whether this was so we have no knowledge; nothing appears in any of the exhaustive Parliamentary Reports as to why the colonial animal was rejected,|| but two points stand out in the enquiries: (1) that the Remount

Department had made no study of the horse supply of the world, and were (2) unwilling to learn the class of animal suited to South Africa, see this history p. 124. Can anyone doubt after reading the evidence of Colonel Duck, that had the veterinary service been listened to in 1899, before a penny in the purchase of remounts had been spent, hundreds of thousands of pounds would have been saved? In all matters pertaining to horse questions, whether in South Africa or elsewhere, our action has not been that of a nation of wide experience and extensive practical knowledge.\*

Circumstances in South Africa towards the end of 1900 were now forcing our hands. We suddenly found ourselves in possession of the most unwelcome burden of the thousands of captured and protected horses previously referred to. It is true that prior to this, purchases of local animals—reported in December, 1899, as being unobtainable—had been made. In the first nine months of the war 18,000 cobs and 11,700 mules had been bought in South Africa, largely, though not entirely, for Colonial troops; but before the end of 1900 54,200 horses and 18,500 mules had been so obtained in Cape Colony and Basutoland, this in a country which a year before was declared unable to furnish them. Necessity was overcoming prejudice, and common sense dictated that captured and protected stock should be employed. We are anticipating matters by saying that nearly double the above number of horses and as many mules were obtained during 1901.

The first insight into the number of horses in Cape Colony was gained in the last month of 1900. The threatened invasion of De Wet placed the Orange River districts under martial law, these were ordered to be cleared of horses. It resulted in thousands being brought in for "protection," but large numbers still remained, of which, as we will see later in 1901, the enemy was not slow to avail himself. Lord Kitchener learning of this supply was determined to utilize it, as we shall see when that period of the war is under consideration.

that the enquiry was unnecessary; it was certainly very late. It was perfectly well known that no horses for cavalry and artillery, of the size and substance employed by the Army at home, were obtainable in South Africa, or ever had been. Curiously enough, Colonel Stevenson was not directed to include animals for mounted infantry in his enquiry—the class of horse which existed in thousands.

\* "This was the fatal mistake we made in South Africa in 1899. Thousands of hard little horses could have been procured. But these were allowed to be taken by the enemy, and we imported a comparatively useless animal at about double the cost."

† "Had the War Office listened to advice from South Africa, 1898-99, our columns, during the first part of the war, could have been well mounted with local horses. But the enemy got these, and we tried to get near them with men mounted on soft, unseasoned animals."

‡ "During the first year or so of the war, it was ridiculous to see columns, mounted upon played-out horses, passing close to farms which contained good seasoned ponies, and yet making no attempt to remount themselves."

|| "Horses for War Purposes," Major A. H. Lane, A.V.C. United Service Magazine, April, 1912.

\* C. of E. Rem. App. F., p. 364.

† C. of E. Rem. Rept., p. 28.

‡ Idem.

\*\* C. of E. Rem. App. F.

|| In July, 1899, the Inspector General of Remounts directed Colonel Stevenson, then in South Africa, to render a report on the supply of cavalry and artillery horses in that country. (C. of E. Rem., Q. 2795.) It would seem



THE VETERINARY SERVICE AND THE  
HORSE QUESTION IN 1899-1900.

The new phase on which the war was about to enter led to an enormous increase of remount operations. We have seen that there was a supply of horses on the spot which no attempt was made to tap until towards the end of 1900. Orders were sent to the War Office for horses at the very time we were capturing and taking care of thousands of country-bred stock in Cape Colony. Immense numbers of horses existed in the Free State; it took two years of war to ascertain their resources and obliterate them, yet no attempt on a large scale was made during 1900 anywhere than at Harrismith to utilise the animal of the country. Strange to say to what we could get for the collecting we attached no value, but it will hardly be believed that in the enemy's country we actually sent a remount officer to buy ponies which had returned with their owners off commando, instead of taking them on requisition! The evidence is given by Captain Elmhurst in *C. of E. Rem.* p. 36. This officer was sent on remount purchasing duty in the south of the Free State in May, 1900. *He purchased 800 animals from the enemy tired of war*, and says he could easily have obtained another thousand. We well believe him! The part of the country he was buying in teemed with horses, there were tens of thousands, and it took innumerable columns two years to clear the south of the Free State, even after the enemy had largely drawn on the supply for his own purposes!\*

The fresh horses demanded from the War Office for Cavalry and M.I. purposes were, on arrival, found large enough to please the most critical; new, soft, unacclimatised, unfit, tired, sea-sick animals, carrying summer coats in winter and winter coats in summer. They arrived by thousands and disappeared by thousands. To obtain a new horse appeared to many to be a solution of the horse difficulty. This pernicious doctrine spread throughout the length and breadth of the service, and was not only the cause of enormous waste, but, with a few bright exceptions, blunted the moral sense of all ranks, including both subordinate and column commanders.

One would have thought that if big horses were desired it would have been common sense to seek for them from among those which had undergone repair and regeneration after their first collapse, rather than in those newly imported and in boardship condition. The indiscriminate destruction of valuable imported horses during the war was a scandal of the first magnitude. From first to last the Veterinary Service set its face against the ruthless destruction of horses, the lives of which few outside its ranks appeared to value. Judicious

weeding is part of its duty, but the wholesale destruction of animals which only required rest and food could receive no countenance, and was absolutely unjustifiable. We believe that the attitude thus taken up by the Veterinary Service, with its skilled knowledge of what is fit and unfit, will meet with public approval, both in the interests of the campaign and of the taxpayer. Any incompetent can direct a bullet to be put into a horse's brain, but it requires knowledge and experience to know when this should be withheld. The moment operations on a large scale began in February, 1900, the destruction of animals which fell out was carried into effect; so great became the evil that in a few days General French, on the advice of his S.V.O., Captain Blenkinsop, put a stop to it so far as the Cavalry Division was concerned (see p. 57), and had there been a P.V.O. at the time with the Headquarter Staff of the Army, there is no doubt that the evils of indiscriminate destruction would have been properly represented. We have also seen at p. 120 that as the result of there being no Horse Salvage Service with an Army in the Field, the leaving of animals behind had subsequently to be rescinded, as they were picked up and utilized by the enemy.

The attitude of the Assistant Inspector of Remounts on this important question is remarkable. One would have thought that it was to his interest to save as many horses as possible, but in a report from him to the Commander-in-Chief, dated July, 1900, and subsequently printed as a Parliamentary Paper,\* we find his views on the conservative efforts of the Veterinary Service expressed as follows:—

"There is a natural reluctance to destroy the wrecks of fine animals which it is difficult for the professional veterinary enthusiast to overcome, and such animals, *though useless for the present campaign*, † are apt to be kept in veterinary field hospitals, eating rations which are more valuable the further they are brought from the coast." ‡

We shall, later, have occasion to refer again to this Parliamentary Paper, owing to further destructive criticism of the veterinary service which has been introduced into it by more than one pen. At present we shall confine our attention to the above extract, in which two points arise. The Assistant Inspector of Remounts, of all men in South Africa, charges the Veterinary Service with hanging on to horses which he considers were useless "for the present campaign." Nevertheless, the campaign lasted for two years after that opinion was expressed, and it is fair to assume that what we held on to proved subsequently useful and not useless. His

\* Remounts (Army) Parliamentary Paper Cd. 963, 1902. This is the Parliamentary Paper we have already seen at p. 114.

† The italics are ours.

\* An Army Order issued in the Free State, dated 11th April, 1900, directed local horses to be purchased; on 18th May, authority was given to requisition horses and supplies in the O.F.S. On 16th July it was promulgated that the horses of burghers making a voluntary surrender were to be paid for, and this was not countermanded until May, 1901.

‡ So imbued was the A.I.R. with the wisdom or necessity of carrying out the ration policy of the Supply Department, that he instructed his Staff Officer to enforce the destruction scheme. See *C. of E. Rem.*, Q. 222-223.

second point is the forage question for the sick, and the attitude he there adopts is the complete echo of the Director of Supplies, who, against veterinary opinion, maintained General Buller's starvation rations for horses (see p. 14).

The question is, must horses either be destroyed or starved, when, owing to the unfair stress of war they become temporarily useless? Is it cheaper to buy a new constitutionally unfit horse over-sea, than to feed and repair the old one on the spot? Is no provision in the way of food to be made for the sick and injured? When Parliament voted its millions, had it any doubt that a fraction of them would go to feed the thousands of horses temporarily used up in the service of the country? The scheme of destruction in order to save forage is a monstrous one, and it is to the lasting credit of the veterinary service that in this matter they could not be coerced; that being so they are pilloried, not only in the Parliamentary Paper, Cd. 963, but in a memorandum voluntarily drawn up by the D.A.G. Supplies, S.A., and published by the Royal Commission on the War, to which allusion will presently be made.\*

In the report of the Asst. Inspector of Remounts above quoted, the whole horse question as affecting the Army in South Africa up to July, 1900, is dealt with, but there is not one word said regarding the starvation rations allowed to horses in the Field, though he knew of its disastrous consequences. It is impossible to conceive the remount question in South Africa forming the subject of a report, without the principal cause of the obliteration of the trained horses of the Army being referred to! The A.I.R. was not ignorant of the forage struggle between the veterinary and supply authorities at Cape Town, for he was on the spot and was consulted, but his report is silent on the matter of the rations allowed, and its subsequent influence on the wholesale loss of horses from starvation rations. We cannot believe the Asst. Inspector of Remounts favoured the ration which was laid down at Cape Town, but it is neither condemned nor referred to, the only reference to feeding being that in which he blames the veterinary service for employing food for the purpose of resuscitating debilitated and war worn animals.

We are fortunate in not being left without the official view, on this all important question, of the then Director of Supplies at Cape Town. In his examination before the Royal Commission, this

\* In spite of the veterinary efforts made to prevent indiscriminate destructions, the *St. James's Gazette* in an issue at the end of March or beginning of April, 1902, charges the Veterinary Service with being unable to do anything but shoot their cases. This ungenerous criticism is stated as follows:—"It is, we fear, only too likely that there is truth in the reports which tell us that the one notion the Army Veterinary Department has of curing a horse is to shoot it . . . ." Extracted from *The Veterinary Record*, 5th April, 1902. We hope the Editor of the *St. James's Gazette* subsequently saw Parliamentary Paper, Cd. 963, and the Appendix to Evidence of the Royal Commission on the War, p. 245!

officer handed in a memorandum,\* voluntarily prepared, giving his opinion on a variety of questions not connected with his duties, and some quite foreign to his training, among others the organization of the Veterinary Service and the feeding of sick horses in war. His views on both these questions are so entirely in agreement with those put forward by the Asst. Director of Remounts, that they might have been written by the same hand. The Director of Supplies says: "Animals not likely to be of service for several months should be immediately destroyed or otherwise disposed of. Great waste of forage occurs, and the transport service is subjected to an unnecessary strain, when large numbers of useless animals are retained in sick horse depots for several months and then shot."

It will be observed that this officer goes out of his way to remark on the large number of useless animals retained in veterinary hospitals. It may be well to explain that of this he could have no personal knowledge, but would be entirely dependant on what he was told by others. He tells us they should be immediately destroyed, a matter that has nothing whatever to do with his duties. He does not venture to touch on the question of the cause of the losses; we are not told a word of Sir Redvers Buller's starvation rations for horses, which were enforced by the authorities at Cape Town, but he imperiously demands the destruction or disposal of horses which a week or two before were landed in the country at an average cost of about £70 a head.

We have said above that one of the important duties of the veterinary service in war is to prevent the indiscriminate destruction of the property of the public, and in this, as in everything else dependant on human judgment, errors will occur. There are cases of injury and sickness which at once tell their own tale, but there are many which have to be observed before any opinion of their incurability can be arrived at. The judicious officer in a hospital weeds out evident cases daily, and all others as they declare themselves. That any large number of incurable cases evaded the bullet for several months, and were then destroyed, as we are told above, is more than improbable. But even if it could be shown to be true, it is better that the veterinary service should be charged with the offence of keeping their patients too long under treatment, rather than that of shooting them too soon in order to get them off their hands.†

The Memorandum furnished by the late Director of Supplies to the Royal Commission makes no mention of the forage consumed and wasted in the so-called Remount, Resuscitating, or Debility farms. Those places were formed in December, 1899. Before the end of 1900 they contained some thousands of starved horses, and thousands of others had already died. These farms, about which much yet remains to be said, were generally under un-

\* R.C. Appendix to Evidence, p. 245.

† See footnote opposite. Extract from *St. James's Gazette*.



skilled management, and were forage-wasting centres. This statement is not made in any spirit detracting from their usefulness: they were absolutely essential institutions, but they required to be properly organised, and the cases sent there needed the greatest judgment in their selection. The forage was wasted by the absence of proper methods for feeding, want of proper supervision, by overcrowding, and want of system in selection and inspection. It was wasted by animals remaining on the farms when again fit for issue to the troops, and in other ways.

No mention is made of these places in the above Memorandum as sources of forage-drain, doubtless for the reason that they were under remount control and administration, and not under A.V.D., and also, perhaps, because it was the starvation rations which in the first place helped to fill them. The criticism of the A.A.G. Supplies is only directed against the veterinary service and its hospitals. Of these, he knew nothing from personal knowledge, any more than he did of the debility farms, nor did it form part of his duty. The duty of the supply department is to find the food, its subsequent utilisation lies with the General Officer in command.

We do not observe, for instance, that unsuccessful military operations, involving the laying up of hundreds of animals day by day are referred to by the Supply Authority, though for every animal laid up two had to be fed. He well knew the storm that this class of criticism would evoke; blame, however, might be showered on the veterinary service, without anyone in authority being found interested in refuting it. At the beginning of the war the supply, transport and remount services were, as we have seen, under one head, yet we find nothing in the memorandum of the Supply and Transport authority on the waste of ammunition in the field, after all the trouble he had been put to in carting it there; nevertheless, the waste was so great that it is a well-known fact that we kept the enemy partly or wholly supplied for months. Why, in the interests of the transport service, was not this useless waste of animal energy and waggon capacity referred to? Or, again, why did he not refer to the ineffectiveness of artillery fire early in the war,† considering the trouble he had had in providing transport for thousands of shells? The answer, of course, is that it would at once have brought him into conflict with the military authorities, who would doubtless have informed him that when his criticism was desired it would be asked for.

It is evident that the writer of this Memorandum made a special point before a Royal Commission of publicly criticising in adverse terms another branch of the service. He thereby not only exceeded his functions, but by going outside his knowledge and

training laid himself open to the suspicion of malevolence.<sup>1</sup>

One final criticism for the period under review remains to be made on the Parliamentary Report of the Assist. Inspector of Remounts, and the Royal Commission Memorandum of the late Director of Transport and Supplies in South Africa.

We have seen that at the beginning of the war the Transport, Remount and Supply Services were under one head (p. 114 *et seq.*). It was for the Transport Service that the remount representative in Italy purchased 7300 mules, which arrived in Africa in November and December, 1899, but not a word enters into either of the above reports on the nearly 3000 stallions forming part of the consignment (see this History, p. 14). Yet it was perfectly well known that the blunder caused serious delay to the transport arrangements, and that these animals, while undergoing castration, consumed forage for some weeks without giving any return. Here, indeed, was a legitimate subject for criticism from all three sides. The Remount Department in being penalised by having their accommodation blocked by animals which were temporarily useless to them; the Supply branch in having to feed useless mouths; the Transport department in being unable to obtain the promised animals from the Remount branch, at a moment when every nerve was being strained to find transport for the troops now assembling in the country. As if by tacit agreement, absolutely no reference exists on this important public question in any of the above reports.

The irresistible conclusion is that Remounts, Transport and Supply being at that time all

† It is no part of this history to determine how far the Director of Supplies succeeded in the administration of his own affairs, and the matter would necessarily not be referred to by us but for the unwarrantable attitude he has voluntarily assumed towards the Veterinary Service. It is well known that his contract for the supply of meat for the Army was not considered a financial success, and the rate was subsequently reduced. The matter was dealt with by the Royal Commission, and the Director of Army Contracts in his evidence, Q. 6413, stated "The meat contract is one that rather looks as if, perhaps, a little more economy might have been practised." In point of fact, the Director of Supplies paid 11d. a pound for what was subsequently reduced by the War Office to 9d.; the cost of the material delivered from Australia, at base ports in South Africa, being 3d. As the contract was for 4,000,000 lb., a sum of £33,800 was at stake, which would have sufficed to give every horse and mule with the Force under with Lord Roberts a daily hay ration of 10 lbs. for a period of twenty-seven days even had the material cost £10 a ton.

There was also a question of coal for hospitals, the local price for which was £5 10s. a ton; this price the D. of S. objected to, and cabled home for 500 tons of household coal, which on arrival had disintegrated while passing through the tropics. In his evidence, the D. of S. says, Q. 3500, "when this coal came out I found that it was simply coal dust, and as it was useless I sold it for a few shillings . . . ." That loss would have helped pay for forage.

We may add that before this officer was relieved of his duties with Transport in February, 1900, and, as Director of Supplies in March of the same year, he was long enough in office to witness personally at Paardeberg and Bloemfontein the effect of starvation rations upon horses in the field.

† In the action at Diamond Hill, "R" Battery Horse Artillery fired 108 rounds and wounded one Boer gunner. "Times History," Vol. iv., p. 281.

members of one big family, any reference to such awkward questions was undesirable.\*

It is very hard for a small service, with no friends, to exist when attacked in the open; it is doubly difficult when the weapon is employed in the dark. No one in the Veterinary Department saw the report of the Assist. Inspector of Remounts, until it was issued over two years later as a Parliamentary Paper. The attack also which was made through the medium of the Royal Commission could not be met, for, as we have already stated, p. 1, not a single veterinary officer who served in the war was examined before it.

#### DEBILITY FARMS, 1899-1900.

Scattered references have already been made to Debility Farms.† In connection with them we direct particular attention to Army Order 2 of 30th January, 1900 (p. 116), in which it is prescribed that horses requiring a rest shall be returned to a Remount Depot for this purpose, a matter in which the veterinary service was never consulted. Debility Farms must now receive more extended notice.

The war had not lasted more than a few weeks, when it became evident that some special provision would have to be made to receive the accumulation of war-worn animals requiring rest and food. The most natural arrangement to make was to turn them out on a farm, and in the first instance this was done near Cape Town, but it proved a failure: half of the 500 animals so turned out were subsequently found either to be glandered, to have died, or were destroyed for various causes. Another scheme referred to at p. 49 of this history shows the difficulties attending on making provision for this class of case. Finally, it was determined to hire farms and run them with civil labour and military officers, the whole being under the control of the Remount Department. No doubt at first this scheme of administration appeared perfectly sound, but later on, with the unexpected pressure of work, it was impossible for this service to give the debility farms the close supervision which they required, and on which their full usefulness was wholly dependent. The remount department, with the best intentions in the world, undertook more than it could properly manage, even had it understood the intricacies of farm-hiring, grazing and water-rights, shelter, character of herbage (which varies enormously in the various districts), the acreage required per horse, and the management of large masses of animals. The ignorance of the bulk of its officers on any question relating to the management of horses was not only

its own cry, but that of all outside their department.‡

When, therefore, it took over debility farms they had no conception of their difficulties nor any practical knowledge of their effective management.

The underlying feature of the administration appears to have been based on the notion that all that was required was to collect the debilitated and war-worn, turn them out, and bring them up when fit. No organized machinery, it would appear, seemed necessary for a scheme of such simplicity, and when the mistake was discovered it was too late, for the whole question had then assumed gigantic proportions. The wisdom of turning the animals out is undoubted, though not because it saved food. The fact is they were unable to digest corn; what they required was their natural diet of grass, until physiological action of the digestive canal was restored. They were then able to digest corn, provided it was boiled, until in due course they could be brought upon their ordinary diet.

After the surrender of Bloemfontein, the feeding of the thousands of debilitated animals so far from the source of supply became a very serious matter, and this was the prime factor in engaging farms in Cape Colony for their reception. The sorting process undergone by this wastage of an army has already been described at p. 127. No animals were kept in the Free State which did not offer a reasonable prospect of recovery within one or two months, the balance being sent south to debility farms or for sale, and the hopeless cases destroyed.

The authorities were fortunate in securing an excellent farm at Achtertang in Cape Colony, bordering on the Orange River, and to this were sent the Modder River-Bloemfontein *débris* which were most likely to make an early recovery. Other farms were taken in connection with remount depots, which was a sad mistake, as it invited accidental, or, owing to ignorance, even deliberate mixing of the sick with the healthy. One farm situated near Port Elizabeth was an unfortunate selection, as neither grazing nor water were procurable in sufficient quantities. Further, the coast district is unsuitable to horses. The farm ought to have been abandoned when the blunder was discovered, but this was not done. The place later on, together with the Remount Depot, became a hot-bed of

‡ In the *C. of E. Rem. Evid.*, p. 25, Major-General Maurice drew attention to the fact that an officer employed in connection with the Remount Department had published an attack upon it, in which he said:—"The Remount Department consists of officers who have no special qualification for the technical work they are called upon to supervise and execute. Even the slight recommendation of belonging to the Cavalry, or Horse or Field Artillery, is not insisted upon, for we find many of these gentlemen are recruited from the Infantry, Militia, Volunteer, and even from the Navy, without proof being required that they possess any acquaintance with horses."

General Maurice, a member of the Court, asked the Inspector-General of Remounts the question, Is this true or not? The answer was deferred at the request of General Truman's council, and the matter subsequently seems to have been lost sight of.

\* The facts were known in the War Office. Here is an extract from a letter, dated 12th Dec., 1899, from the Assistant Inspector of Remounts, South Africa, to the Remount Authorities at the War Office:—"About 40 per cent. of the Italians are stallions and are being cut."—*Court of Enquiry on Army Remounts, Appendix F*, p. 366.

† See pages 13, 20, 23, 41, 49, 59, 97, 118, 127.



disease. A farm was also taken at Dordrecht, where the debility cases were kept by themselves, but it was too far away for effective supervision. Stellenbosch, as we have already seen, p. 20, received both remounts and debility cases. This does not exhaust the entire list of places wholly or temporarily occupied, but the weak points to which we have drawn attention were apparent in all.

The farms, generally speaking, were quite inadequate in number and size. In Africa a horse is allowed, according to the locality, from 10 to 15 acres for grazing all the year round, no other food being given. Farms to carry 3000 horses were by no means an easy matter to secure. They had to be located in a good grazing district and not on scrub and bush; to possess a convenient and ample water supply, and be not too far away for military protection and administrative purposes. A number of small farms would have been better than a few large ones, and very early indeed it should have been clear that even a good grazing farm is such only during certain months of the year. The growth in the winter is small and innutritious, and on it stock practically starve.\* Evidently the problem of keeping horses without feeding them, which appeared to be the point arrived at by the Supply Department, could not be solved even by turning animals out to graze. All the farms had to be supplied with forage during the winter, and the poorer ones all the year round. They became, through want of system and overcrowding, great forage-wasting instead of forage-saving centres.

Long before the year 1900 had expired, the Remount Department would have been very glad to have got rid of the incubus with which it had saddled itself: but with experience things should have improved. The overcrowding of animals, the bare grazing, shortage of water, the struggle for food, the waste of food thrown on the ground, all should have suggested more farms, mangers, and smaller collections of animals. It should, also, have been clear that supervision by officers free from all other duties was essential if the best results were to be obtained, for in feeding it is the master's eye which secures all the success.

The numbers on debility farms were increasing week by week. The supply coming into the line of communication was constant; every remount officer there made it a point to push on his collection to someone else, in the hope that it would finally arrive at bedrock. In this journey by train there was the indiscriminate mixing of cases of glanders and mange with the healthy; these were again mixed with other horses on arriving at their destination, and so the process went on.

By December these farms, now widely scattered, contained some thousands of horses. As early as July, 1900, the one at Achtertang contained 1600 animals, of which 700 were affected with mange; a little later, the farm near Queenstown contained between two and three thousand "debilitates":

\* See footnote p. 29.

Dordrecht contained 1200 animals, all affected with mange. Stellenbosch, like Natal, had from the first mixed up in the one depot the war-worn and remounts; no less than 400 cases of glanders occurred in this depot between Oct., 1899, and Nov., 1900. All did not, of course, occur in debility horses, but the large majority did. In the same place and in the same time no fewer than 1200 cases of mange had occurred, nearly all being in war-worn animals. Besides the farms in Cape Colony there were others in the Free State, in Northern Natal, in Pretoria, and before the end of the year at Johannesburg.

In spite of their inherent defects the farms were useful; the fittest animals survived, the strongest obtained the lion's share of the grazing and hand-feeding, and when sufficient time had elapsed to allow of recovery some 3000 horses a month went back to the fighting line, though probably these do not represent one half of the number originally received.

The farms required a constant veterinary overhauling in order to eliminate contagious cases, while their management should have been entrusted only to young energetic men with a capacity for learning, and capable of acquiring knowledge. But such men would not be satisfied to be on a farm when more active work was available at the front, and it is unfortunate that many of the officers supplied to the Assist. Inspector of Remounts were misfits,† and their ignorance of any portion of the duties with which that Department was saddled could only be described as colossal.

On one of the purely grazing farms the Commanding officer had no idea of the number of animals in his care, nor how many were horses or mules. He had not looked through his stock for weeks, and in consequence had large numbers which ought to have been sent to the nearest remount depot for issue. This was not an exceptional case. The Assist. Inspector Remounts, writing of another depot to the Inspector-General of Remounts at the War Office, ‡ under date 17th January, 1901, says,

"It will give — a chance of getting on with his sorting of the 5000 cobs he shows unfit on his state. I know 3000 of them at least are alright, and only want catching and shoeing, but he will not and cannot bustle."

If the military arrangements for the care of animals on these farms were bad the veterinary arrangements were worse. The Assist. Inspector of Remounts had a veterinary adviser with a staff under him. It is at once admitted that the staff was not only inadequate for effective remount duty, let alone the addition of the farms, but was mainly without experience of any kind in military matters.

† Extract from letter to Inspector-General of Remounts, War Office, from the Officer in charge Remounts, South Africa, dated 8th February, 1900. *C. of E. Rem. Appendix F.*

"I am only given officers that other people do not want, chiefly so with the exception of —, —, —, and commanding depots.

‡ See *C. of E. Rem., Appendix F.*, p. 367.



Farm expansion occurred at a far greater rate than veterinary personnel arrived in the country or could be engaged; even then only a proportion could be given to the remount service, who, through their high-handed action in previously commandeering veterinary personnel and assuming control over it, had done their best to destroy sympathetic as apart from official co-operation. The remount service had rendered itself responsible for the collection of the war-worn animal, and the numbers on the debility farms rose by leaps and bounds. The veterinary service was responsible for inspection and prescribing isolation; no facilities for either of these existed at the moment they were most valuable, *i.e.*, before the animals entered the farm. A train, for instance, would arrive with, say, three hundred or more horses; the trucks had to be rapidly emptied and at once liberated for supplies or other purposes. The debility cases were taken out, probably not a single head collar existed among the whole lot of horses. They were held in a "bunch" by a few natives and conducted to the farm, turned in and the process ended. What was required was an isolation and inspection centre for all animals arriving from the front, in which the preliminary sorting of the diseased and apparently healthy could be made. The whole of the horses on the farm should have been submitted to regular periodical veterinary inspection. But there was neither time nor staff for the efficient carrying out of this extremely important duty, and the absence of organization, failed to make the best and the most of available material. The other side of the medal shows that probably at the very time the train load of "debilitates" arrived, every member of the remount staff had been working day and night, preparing the next draft for the front. These were busy times; the constant pressure of purely remount operations never relaxed for a single day, and no doubt it was always felt that the work connected with remounts was of greater importance than overhauling a train load of "debilitates" from the front.

There was a civil veterinary surgeon on each farm, but he required instruction and guidance. Few were able to adjust themselves to the difficulties of their surroundings, and apparently none able to organise a scheme for methodical inspection and isolation; nor had they the control of the all-important labour, without which the collection of horses for inspection was impossible.

We fully appreciate the difficulties of the veterinary administration of debility farms, some of them situated hundreds of miles apart, but the story to be unfolded in 1901 is so terrible that it must be met by the utmost frankness, with the object of providing against such a disaster in any future campaign. The result of the condition of affairs above described will be dealt with in Part II.

It is necessary to enquire how it came to pass that animals known to be affected with mange and other contagious diseases found their way on to debility farms. In this matter the veterinary service cannot be held responsible; probably a very

small proportion of the total number of war-worn horses sent to the remount department by columns were ever seen by a veterinary officer. It was the commanding officer who sent his batches of unfit to remounts, demanding other animals in their place. Again, willing or unwilling, the veterinary service had to hand over animals from the hospitals in the Free State and Transvaal in order to reduce numbers. In July, 1900, an order was issued that all sick animals requiring a month's rest were to be sent to the remount department; others requiring a longer period were to go south to Cape Colony and be sold. We cannot acquit the remount department of instigating this order, for there was a constant struggle to get hold of the cases in veterinary hospitals, as may be seen in the following extract from a private letter written from Johannesburg on 17th January, 1901, by the Assist. Inspector of Remounts, S.A., to the Inspector General of Remounts, War Office, and published in Appendix F of the *C. of E. Rem.* :—

" — " is here in the Veterinary Hospital in our valley; he has about 4000 horses, quite one third of which we could do with and handle much better than he can, but he will not part with more than 20 to 50 daily."

We shall see in Part II. how lightly the Remount Department thought of mange, and sneered at the diagnosis of glanders, so that the risk of infecting their farms and depots never, in spite of warning, appears to have been taken seriously. What they wanted were the horses from hospital; the Army Order quoted at p. 116, and that referred to above, shows their attitude in this matter, and their anxiety to get rid of useless mouths by sending all temporarily unfit animals south.

Nevertheless, in spite of the difficulties described, some better effort should have been made to inspect these animals on the various farms, and eliminate those suffering from contagious and infectious disease. For this defect, the remount veterinary service, in spite of the manner in which it was handicapped, must be held responsible.

#### SALES OF WAR-WORN ANIMALS, 1899-1900.

We have stated elsewhere that a new horse appeared to be the Army panacea for meeting casualties, and new horses meant getting rid of the war-worn in order to keep down the forage bill and that for attendants. The new horse, as we know, only led to further wastage, and so readily available was the supply that it actually, as all experience showed, increased the waste and diminished the efficiency. The moral obligation of looking after an animal is neglected when it can be changed to-morrow!

Very early in the war the remount department began to sell the unfit and tired. Many hundreds were sent for sale after the Bloemfontein operations, and as we saw in the last section the order for sale was repeated in July. Altogether some 9000

\* Left blank in the original.



horses and 200 mules were sold during 1900. Any one with experience of these matters knows how easily mistakes may be made even with due care and attention, but in the hurry and bustle of a campaign when a glance of the eye has to take the place of methodical inspection, nothing is easier than for useful as well as useless horses to be sold; that is to say, horses which with a short rest would have made such marked improvement that to sell is to waste. Useful horses were sold and found their way into the hands of the enemy; to prevent this recurring they were sold at base ports and found their way into wrong hands. The low-class dealer became greatly in evidence, and the scandal of the sales in Cape Town in 1900 found expression in the *Cape Times*, and led to their being stopped, at least temporarily, for as we shall see in Part II. sales again took place in 1901. However, for the time being they were stopped by an Army Order issued on 6th Sept., 1900, which directed that if the animals were not likely to be fit for work again, or it was impossible to rest and feed them, they were to be destroyed. A few days later it was found necessary to issue an order that the sale of animals to inhabitants by the troops was illegal! Apart from the cruelty attendant on sales, these also had the effect of spreading disease, and therefore caused the veterinary service of the Civil Government of the Cape considerable anxiety. We contend that these sales were wrong, both in principle and practice, and led to the waste of horses which with care would have come forward again for military service; the solution of the problem lay in the proper organization of and increase in the numbers of debility farms. These animals on recovery would then have been far more valuable than a newly imported horse.

#### STATISTICAL ENQUIRY,

1899-1900.

We know with considerable accuracy the number of animals from overseas which entered South Africa, but their subsequent disposal is guess work. We have an incomplete knowledge of the number of animals belonging to the country which were utilized, though we know the number actually paid for. In addition to these, vast numbers were picked up on the veldt, of which very incomplete records exist. This latter question, however, is not of importance during the period under review, but assumes vast proportions in subsequent years. The whole campaign was one great rush from start to finish, it was not indeed until the war had lasted five months that any order was issued regarding casualty returns of animals. The question had not been thought out in peace, and the matter had to be introduced during the pressure of active operations, when it is safe to say not half of the units engaged ever saw orders issued from Headquarters. The Remount Department assumed the responsi-

bility of collecting casualty returns, the veterinary service continuing to collect those dealing with disease and injury. In regard to the latter, only a small proportion of the veterinary staff had any knowledge of the statistical information required, or how to set to work to obtain it. One return, drawn up by the D.G., A.V.S., on the breaking out of hostilities, was a "marching report," showing the number of animals taking part, the distance travelled and casualties. It was, however, rarely rendered excepting by officers of the regular service, and even with these, owing to the absence of forms, and the irregularities of postal communication, only very incomplete information was obtained on a question of the highest practical importance. There is one marked exception, and that was in the Cavalry Division under General French. So long as this existed as a separate command, the most complete and valuable information was furnished by his S.V.O., Captain Blenkinsop, D.S.O., whose figures of the wear and tear from Modder River in February, 1900, to Pretoria in December, 1900, form the statistical basis of this history so far as the Cavalry is concerned.

The following gives the various Army Orders published during 1900, bearing on the question of statistics:—

On 18th February, 1900, a weekly return was directed to be furnished showing the number of horses and mules in each command.

On 8th March, 1900, an Army Order was published directing a casualty return of horses to be rendered after an engagement, showing the number killed, wounded, died from exhaustion, died from other causes (specifying their nature), and number unfit for duty.

On 30th April, 1900, an Army Order was published directing the "Regimental Return" of horses and the "state of horses and mules" to be furnished monthly to the War Office. The furnishing of this return was a mistake in view of the Order next to be quoted. On service there is very little time for this class of work, and the fewer returns the better.

On 8th and 10th September, 1900, an Army Order was published directing "animal accounts" to be rendered monthly to A.I. Remounts. These accounts were to show the strength in animals at the beginning of the period covered by the return; the number of remounts received during the month; the number of horses which during the month had died, been killed, lost, left in charge of inhabitants, transferred, or returned to the Remount Depot, and the number of animals in hand at the end of the month. This Order was republished three times during 1901, so great was the difficulty in obtaining information from units.

The "Animal Account" was a valuable and necessary return of the wear and tear in the Field; but probably not half the units in the Army furnished it.



## Royal Counties V.S. per G. P. Male :

10	0	0	Stockman, Sir S.		
3	3	0	Bull, R. Page	3	3
10	10	0	Slocock, S. H.		
10	10	0	Hancock, W. A.		

3 3 0

## Eastern Count. V.M.S. per S. Smith, jr. :

10	10	0	E.C.V.M.S.		
10	10	0	Shipley, Wm.		
10	10	0	Leach, E. H.		
10	10	0	Bower, Wm. (the late)		
2	2	0	Smith, S., sen.		
2	2	0	Smith, S., jun.		
1	1	0	Little, W. L.		
1	1	0	McTurk, A.		
2	2	0	Auger, T. E.		
1	1	0	Holl, A.		
3	3	0	Kitchin, J. E.		
1	0	0	Jack, D. S.		
1	1	0	Wallis, F. M.		
1	1	0	Barr, J.		
2	2	0	Bray, M.		
1	1	0	Godbold, J. R.		
3	3	0	Thurston, J. F.		
3	3	0	Taylor, R. C.		
1	1	0	Turner, P.		
1	1	0	Waters, W.		
3	3	0	Barcham, T. E.		
10	6		Buckenham, H.		
20	0	0	Midl. Co.V.S. per J. J. Burchnell		
10	10	0	Westn. Co.V.S. per Wm. Ascott		
10	0	0	Heatley, T. G.	10	0
1	1	0	Bullock, F.		
2	2	0	Morphew, H.		
1	1	0	Sampson S. E.		
1	1	0	Wynn Lloyd, L. W.		
1	1	0	Rees, J. F.		
2	3	0	Locke, G. H.		
3	3	0	Brown, J. (Invergordon)		
5	5	0	Litt, W. E.		
4	4	0	Robards, F. W.		
5	0	0	Smith, Lieut.-Gen.		
10	10	0	Pugh, D.	10	10
Yorkshire V.M.S. per H. G. Bowes :					
10	10	0	Bowman, G.		
			Clarkson, J.	5	5
			Bowes, H. G.	5	5
			McCarnick, A.	3	3
			Crawford, W.	6	6

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NATIONAL VETERINARY ASSOCIATION.  
(SOUTHERN BRANCH).

A general meeting was held at the Royal College of Veterinary Surgeons, 10 Red Lion Square, W.C., on April 9th. Sir Stewart Stockman, President of the Branch, in the chair.

The PRESIDENT thanked the meeting for the honour bestowed upon him in electing him to the chair. He regretted it would be necessary for him to leave early to keep another appointment. In order that he might answer any questions as an official of the Board of Agriculture, he proposed to take the items on the agenda in a somewhat different order.

The minutes of the special meeting in January were read in abstract and approved.

The Hon. Sec. (Mr. T. C. Toope) intimated that a large number of promises of attendance were received, also numerous letters of apology for absence. He suggested that the General Council of the Association

should elect from its numbers a small working committee to assist him with advice in drafting rules, etc.

The PRESIDENT pointed out that a General Council already existed, and the suggestion was that three or four of those gentlemen should draft rules, and present them to the General Council as a basis on which to work. [This was agreed to].

The Hon. Sec. read the list of the present Council. Mr. VILLAR moved that the gentlemen whose names had been read by the Hon. Secretary should form the General Purposes Committee. It would be impossible to get better men, as they were all enthusiastic workers.

Mr. PRICE seconded, and it was carried. The following gentlemen were agreed to as forming the Sub-committee to draw up the rules for submission : Messrs. MacCormack, Dixon, Crowhurst, Simpson, and Slocock, with the Hon. Sec.

The following members signed the attendance book, Geo. Thatcher Esq., the legal adviser to the Royal College being present as a visitor : Sir Stewart Stockman, President ; Messrs. Hugh A. MacCormack, A. J. Beckett, W. M. Scott, Fredk. G. Samson, Geo. H. Wooldridge, W. L. Harrison, J. B. Buxton, J. W. McIntosh, R. Bryden, Charles E. Perry (Bristol), A. H. Archer, Charles Pack, F. W. Willett, James Crowhurst, C. W. Howard, Wm. Caudwell, C. W. Townsend, Sidney Smith, junr., T. J. Faithfull, F. Morton Wallis, William Hunting, James McCall, James McL. McCall, P. J. Austin, S. Villar, T. A. Huband, Edward J. Mellet, E. Lyne Dixon, and Theo. C. Toope, Hon. Sec., and several others who did not sign.

## THE TUBERCULOSIS ORDER OF 1913.

The PRESIDENT said he had already dealt with the matter at some length, they had spent some hours at it, and the result would be in print. But there might be other things which members would like to ask about it, and he invited them to bombard him on the matter.

The Hon. Sec. read a letter from Mr. Trevor Spencer on the subject of the formation of a National Association of Veterinary Inspectors, to be affiliated to the National Veterinary Association. [The subject came up for consideration later].

Mr. VILLAR said he was quite sure the meeting would feel much indebted to the Chairman for kindly coming and inviting the members to bombard him with questions. It must be difficult for him to answer questions at a moment's notice, especially as those present were intent upon discovering the difficulties in the working of the Order. He was not himself present at the meeting on Monday, and did not know for certain whether the point was raised there. His question referred to the sixth page of the Order, section 7, concerning the post-mortem examination of slaughtered animals. He understood it to mean that the veterinary inspector might come in and condemn an animal as suffering from tuberculosis, and in the ordinary course he would make a post-mortem examination ; and upon the result of that certificate the amount of compensation payable to the owner would be determined. But if the owner objected to the veterinary inspector who had condemned the animal, making the post-mortem, a veterinary surgeon from outside might be called in, whose opinion would be equally binding to the Council. [The President : More binding]. Thus there was a third party introduced to the suit, and so the power was taken out of the hands of the veterinary inspector, and the third party decided the question. He was a veterinary inspector for Middlesex, and he had received a letter from his County Council, dated April 7th, asking him to say in the course of a week whether he could recommend any valuers, and what veterinary surgeons were practising in his district, whom he, Mr. Villar, considered suitable to be approved of by the Executive Committee to make post-mortem examinations where the owners ob-

jected to such examinations being made by county veterinary surgeons. He considered it was awkward to be placed in such a position; to have his opinion overhauled by another veterinary surgeon. There was no provision even for the veterinary inspector to be present, and he asked whether it would not be well to make a representation to get it so altered that the second opinion should be given in the same way as under the Glanders Order, 1907. In that case, wherever at the time the clinical symptoms were not evidence of the disease, the carcass shall be examined by a veterinary inspector of the Local Authority, and notice must be given to the owner, who would be entitled to be present in person at the examination, or by a representative, who, if the owner thought fit, could be a veterinary surgeon. In the present case, however, the representative of the Local Authority had no voice, and what the outside veterinary surgeon said was law.

The PRESIDENT replied that the case had not been quite accurately stated. If there was a dispute, the veterinary inspector had nothing to say either; it was referred to the Board, who gave the final opinion. The point had been a good deal considered by the Board, but it was found that it would be too big a job for the Board to come in, and it would sometimes necessitate sending an inspector to any part of Great Britain, in order to inspect a carcass when there was any dispute. In order to make it final, the Board decided on this plan. There was nothing in the Order forbidding the veterinary inspector of the local authority being present at the post-mortem examination. He had every right to be present; if any outside veterinary surgeon persistently gave an untrue opinion, the local authority would listen to what the veterinary inspector said, and would take care not to agree to that man again, no matter who brought him forward. Mr. Villar, in his statement, had rather exaggerated the awkwardness of the position of the veterinary inspector, for the Order clearly stated that one must only take animals which had tuberculosis of the udder, animals which were emaciated and tuberculous, or animals giving tuberculous milk. In other words, the diagnosis had been made that bacilli were in the milk in cases of milk infection, and in the other case an examination was made of an emaciated animal, having used or not used tuberculin as the case might be. He did not think there was likely to be much error about such cases. If the clinical signs were present *plus* the tuberculin reaction, that, in most cases, would suffice to establish the diagnosis. But the outside veterinary surgeon was not brought in to decide whether the diagnosis was correct, but in order to estimate the degree and extent of the disease. He agreed that in the case of an animal which was not tuberculous being seized, he would be brought in to decide whether it was tuberculous. He put it to members that it would be very seldom that an animal would be declared to be tuberculous when it was not. Veterinary inspectors were likely to be pushed by the Health authorities to declare doubtful animals, but he advised veterinary surgeons to take a firm stand and decline to yield to such suggestions, reminding those who made them that the veterinary inspectors had the sole responsibility under the Order.

Mr. HURAND pointed out that only when there was a dispute, another veterinary surgeon would be called in.

The PRESIDENT announced that the other opinion would only be for purposes of compensation. The owner had some right to object, and the limited right he got was that if the veterinary inspector was not to be trusted by the owner, the owner should name another, and he should be accepted if he were agreed to, if not, the Board of Agriculture must be applied to. The President proceeded to read the clause dealing with this. He thought that was quite fair.

Mr. HOWARD said he was not a county veterinary inspector. He had been appointed by the Local Authority

and the Rural Council to act for them in regard to dairies and milk, and in regard to suspected tuberculosis he asked whether those holding such appointments were liable to lose them under the new Act.

The PRESIDENT replied that was not so, as this Order did not nullify any Public Health Act. Under the old state of things a Health Authority could serve a notice on a man, and say he must not use or sell milk from a certain cow, but the man could sell that cow, and it would be difficult to trace it again. Under this present Order that cow was reported to the Local Authority under the Diseases of Animals Act and the cow was seized if it was found to be tuberculous, and slaughtered, and compensation had to be paid. He thought it likely that this Order would lead to more veterinary inspectors being appointed. In the case of a veterinary surgeon being employed only casually without retaining fee, there was a danger of losing the appointment to which Mr. Howard referred. In reply to another question, he said that registered practitioners were legally allowed to officiate under this Order, but as a matter of fact they could not, because they would have to be proposed to the Board. Still, any practitioner now acting in that capacity would continue to do so, for his appointment could not be terminated by the Board.

(The President having to leave, the Chair was taken by Dr. McL. McCall).

Mr. CAUDWELL said that in inspections, a man frequently came across a doubtful case, he might not know whether the animal had a tuberculous udder or mastitis, therefore he took it that a sample of the milk must be used for microscopical examination to ascertain whether it contained tubercle bacilli. Should they not be found, he took it that the tuberculin test could be applied. Assuming the animal reacted to the tuberculin test, one could conclude it was not a case of that disease. Therefore it was necessary for veterinary surgeons to do their best to clear up doubtful cases.

Dr. McCALL replied that the matter would have to be a good deal left to the clinical experience of the inspector. If on examination he failed to find tubercle bacilli, but from the appearance and the history he believed the animal to be suffering from tuberculosis, he considered there would be justification for having the animal slaughtered. But he should not come to such a decision with a light heart—without feeling he had very good grounds. If a man was found to be making many mistakes—having animals slaughtered which were found not to have the disease—the authorities would say he was trying to find out a little more than was there. It was very much a matter of clinical experience, for a man of experience would probably make very few mistakes. It was well to avoid trying to push things too fast at first.

Mr. ARCHER said he would like to know whether the registered practitioner would be enabled to act as the veterinary surgeon called in to decide a case, as to valuation, etc.

Dr. McCALL replied that the man called in on behalf of the owner must be approved by the Local Authority. A man could not bring in a registered practitioner unless the Local Authority gave consent, and they would be guided very much by their own veterinary inspector. If the Local Authority agreed to a registered practitioner, the matter could be brought before the Board of Agriculture.

Prof. WOOLDRIDGE asked whether, in point of law, he was not a veterinary surgeon, and whether that did not decide the question?

Mr. CROWHURST asked whether, when there was a tuberculous udder only, the animal should be ordered to be slaughtered.

Dr. McCALL replied that if there was no suggestion of tuberculosis being anywhere else but localised in the udder, he would hesitate about having such animal

slaughtered. If the Local Health authority found tubercle bacilli in the milk of a particular cow, the veterinary surgeon had an equal chance of doing so. He would not be content in such a case until he had made several attempts to find it.

Mr. CAUDWELL said the milk might be tuberculous and yet there be no tuberculosis of the udder, the milk being tuberculous through surrounding contamination, owing to the dirty condition of some dairies; the bacilli might have got in from the faeces and the discharges.

Mr. FAITHFULL pointed out that in regard to compensation for animals which had to be slaughtered under the Tuberculosis Order, sometimes the greater part of the carcase was fit for human consumption and that amount went to the reduction of the amount from the rates.

Mr. CROWHURST said that on Monday he raised the question of the source from which the tuberculin was obtained; it was very important that it should come from reliable sources, and that it should be standardised. Every cow-keeper and owner of stock should not be able to use it. And some of the tuberculin sold produced no reaction. Sometimes he had been approached by an owner to put a high value on an animal which had to be slaughtered, to compensate him for the loss he had sustained; this he always declined to do.

Mr. CAUDWELL asked whether the ophthalmic test would enable one to eliminate the process carried out by some stock-keepers to prevent tuberculin causing a reaction.

Dr. McCALL pointed out that the meeting was discussing only two conditions of the animal; those which were emaciated from tuberculosis, and those which had tuberculosis of the udder, or something which simulated it. The ordinary tests should enable one to deal with all that was required under this Order. He had not himself had experience of the ophthalmic test.

Mr. MALE supported the idea that there should be some restrictions on the sale of tuberculin. And it would be well for some resolution on the matter to go from this meeting. He had never found a typical tuberculin reaction except where post-mortem examination revealed that the animal was tuberculous.

Dr. McCALL agreed as to the advisability of this action, but said the Government did not move in such matters unless very great pressure was brought to bear. If such a resolution were passed, one could not expect it to be acted upon at once.

Mr. CROWHURST pointed out that the veterinary surgeon had it in his own hands as to where he would apply for his tuberculin, which he thought should be prepared by the profession.

Mr. ARCHER thought it should be stated that it was illegal for other persons than veterinary surgeons to use tuberculin; it was of no use to try to restrict the purchase, because anybody could procure it from abroad by post or otherwise.

Dr. McCALL suggested that the subject might be brought before the Association at its annual meeting.

Mr. HURAND suggested the following resolution: "That, in the opinion of this meeting, it is desirable that a clause be added to the Tuberculosis Order prohibiting the sale of tuberculin to persons other than those properly qualified to use it."

Mr. MALE agreed, and seconded.

Mr. HUNTING deprecated any such motion being sent, as it could not have any power. And who was to define a "proper person"? And what was to prevent a stock-keeper getting it from abroad?

Mr. MALE said Sir Stewart Stockman stated that he sympathised with the movement, and that he would do his best to get restrictions imposed on the sale of tuberculin.

The resolution was agreed to.

#### THE AFFILIATION OF THE NATIONAL ASSOCIATION OF VETERINARY INSPECTORS.

The HON. SEC. read a letter from Mr. Spencer on this matter, and a general discussion ensued. Prof. Wooldridge remarking that the position of the National Association on this question could only be settled when the Society had been formed; till then any discussion and resolutions would be beating the air. This was agreed to.

"Kettering, April 8th, 1913.

Dear Mr. Toope,

I am sorry that I find it impossible to attend the meeting in London to-morrow.

With regard to the resolution adopted at yesterday's meeting, viz., that a National Association of Veterinary Inspectors be formed, that this be affiliated with the N.V.A., and that the latter be asked to take steps to form a branch confined to veterinary inspectors, it has occurred to me that you may be able to do something to-morrow which will set in motion the machinery necessary to give effect to this resolution. It seems to me that the next step in the formation of this proposed Society of Inspectors must come from the National Association, as it appears necessary to obtain their sanction before we can either affiliate or become a branch, failing which the resolution falls to the ground. I have no reason to suppose that the N.V.A. will refuse to take us in to their fold, but if the support and influence of the southern branch could be utilised to expedite the preliminaries, we should become a going concern much more quickly than appears to be otherwise likely. In the event of the new association being formed I assume that the work in connection therewith would be done by the present officers of the different branches, this would appear to be desirable, and in any event no provision was made at yesterday's meeting by which it could be otherwise carried on.

Hoping you will have a successful meeting.—Faithfully yours,

TREVOR F. SPENCER.

On the suggestion of Prof. Wooldridge it was agreed to send a letter to Mr. Spencer stating that in the opinion of this meeting their Society of Inspectors should be formed, and application for affiliation be forwarded to the General Secretary, who would then act accordingly with all due speed.

#### FEES TO VETERINARY SURGEONS FOR SERVICES TO INSURANCE COMPANIES.

The HON. SEC. explained that this subject was brought forward at the instance, and at the request of the South-Eastern and Southern Counties' Veterinary Associations, and about twelve others had hoped the matter would come up for decision. In Kent the veterinary surgeons had practically adopted the scale, so that unless the equivalent of these fees was offered, the work was refused. He suggested that Mr. Dixon or Mr. Crowhurst could deal with the matter more briefly than he would himself.

Mr. DIXON thought there was but little explanation needed. The fact that veterinary surgeons were much underpaid by insurance offices for the work required of them was patent to all. At present the fees ranged from 2/6 to about 4/-. The scale of fees now distributed around the room was that which it had been proposed to send to the various insurance offices, and the discussion of the sale by members was invited.

Mr. SMITH asked if the insurance companies had already paid this scale of fees in Kent. He had himself written to some of the insurance companies and tried to get an increased rate of payment, but so far without any very satisfactory result. But if it could be said that these proposed fees were already paid in some

counties, the efforts to get them recognised in other counties were likely to be more successful.

Mr. TOOP said he had had a personal interview with the Secretary of one insurance company, who informed him that it would be impossible for the fees to be increased yet; and if any alteration were made in the future, it must be deferred until the premiums also had been increased. It was offered to increase the scale of 1/- on each item, but that was declined by himself, and he did not think it worth seriously placing before the profession.

Mr. McINTOSH said all veterinary surgeons were agreed that the present scale of fees was too low; but, on the other hand, he thought the scale now suggested was too high. At the present time the profession was receiving between £20,000 and £30,000 a year from insurance companies, amounting to £4 to £5 per head. He of course would have no objection to receiving the fees set out in this projected scale, but he thought it was aiming too high. To expect a fee of 7/6 for an animal worth £20 to £35, when the premium was 18/-, and with the allowance for mileage, was unreasonable. He had seen one or two managers of insurance companies, and they expressed themselves as prepared to meet the profession on the point, and in fact one company suggested that the scale should be 4/- to start with, then going to 6/- and 7/-. If a committee were appointed to confer with the insurance companies, probably very good results would be assured.

Mr. WALLIS also would like to have the increased fees, but they represented a big jump. He had been an inspector for a Live Stock Insurance Association, and their ordinary fees were about 3/- per head, but wherever he had told them he had extra trouble and mileage distance, the Association had met him in a reasonable manner. For one man he was asked to examine 35 horses on various farms, the examination only entailing a rough inspection and estimation of age. The fee was stated as two guineas, but knowing the Company as well as he did, he carried out the work, and was paid half as much again.

Mr. ARCHER said he supposed the suggested fees would apply also to cases where the owner paid for the inspection. If it was agreed that these fees should be paid by the companies, in cases where the owner paid the inspection fees he supposed the owner would be charged at the same rate.

Mr. DAVIS said the real question seemed to be as to how much could be got for the work. The premium which the insurance companies obtained was quite small, and there was little left for them after they had paid the fee of the agent and the veterinary inspector. It must be remembered that some insurance companies did without the veterinary surgeon's examination altogether. If prohibitive fees were demanded, probably insurance companies would cross off the veterinary inspection altogether, and be content with the opinion of the agent and that of the owner of the animal.

Mr. FAITHFULL said the point raised by Mr. Davis was very important; as also was that of employing unqualified inspectors. The National Live Stock Insurance Company employed unqualified practitioners to examine animals, and if this Veterinary Association raised the fees, there was a chance that other association, or insurance companies would do the same thing.

Mr. CATON said he had acted for insurance companies during a number of years, and had ascertained the opinions of two or three of the largest managers; and he had reasons for saying that after knowing what had been done at this meeting, they would confer together, for these large companies never decided on general policy without each other. He felt sure they would meet the veterinary surgeons' demands as far as they consistently could. Many of the insurances concerned were of such small value that practically the premium

would be swallowed up; what with the agent and the veterinary surgeon, there would be very little for the company. In the case of the valuable animals, and it being necessary to travel long distances to inspect them, he felt sure the insurance companies would be willing to compensate accordingly. One insurance manager told him only yesterday that they could do nothing until they knew the result of this meeting, and that they had every desire to keep in touch with the best veterinary surgeons, for they wanted the best available opinions.

Mr. CROWHURST said he had an interview with the manager of a company in the show-yard, and tried to convince him of the importance of having a genuine and reliable opinion, pointing out the risks which attached to a mere cursory examination. Many simply took note of the colour, the markings, the age, and formed an estimate of the value, and that seemed to be all that was required. He explained to the manager that it would pay them to have a more thorough examination carried out. An owner, feeling that his animal had heart disease, or something of the kind, and that he would not live long, thought it a good idea to insure it; and if merely the age, markings and general appearance were noted by the examiner, the company would be "let in." Yet anything like a proper examination would reveal the disease. He also pointed out the risks run by insurance companies employing unqualified men. They wanted to act as conscientious men, make a careful examination, and protect the employers' interests; then they would be entitled to a better fee. "Mr. Mackintosh said veterinary surgeons, in putting forward the figures in the present scale, were asking too much." Let a balance be struck, which would be advantageous to both. There should certainly be some mileage allowance. He was in agreement with the spirit of the proposal, and he hoped the profession would secure payment on the projected scale, but he regarded it as very high. These inspections had been carried on for many years, and it was now suddenly discovered that in some cases three or four times the former fee was required. He thought a better plan would be to appoint a small committee to confer with the managers of different insurance companies to adjust the fees. There could be no doubt that at the present time they were ridiculously low.

The HON. SECRETARY said the company he mentioned appointed one veterinary surgeon as their representative in each town. These representatives were authorised to accept proposals, and immediately issued a covering note. They gave their special representative, who could scarcely be called an agent, 20 per cent. of the premiums received, and 10 per cent. on each year's profits. They had 2/6 added for report. The latter was as much as some companies paid for going 4 or 5 miles to inspect a horse. The veterinary surgeon only was employed throughout the whole transaction, and his position under this arrangement was far better. In the last two days he had sent cases through these people, and instead of receiving from 6/- to 7/- in each case, he was paid 12/6 each.

Mr. Candwell supported Mr. Mackintosh's proposition.

Mr. CATON said the result of his 30 years' experience was to enable him to say there were at present six substantial companies who seemed willing to treat the veterinary surgeon well—as they treated their policy holders. There were companies which would put forward tempting offers to would-be insurers, who would, in fact, grant all that was asked for, but were of mushroom growth. They would accept premiums, but when it came to a settlement, that had to be done by means of a writ, the return being "No Assets."

Mr. PACK pointed out that insurance companies consisted of business men, who took care of themselves. He was asked to see a mare in foal, and to say what was the nature of the disease, the fee for which was to

be 2/6. He replied that he could not take it on for that, and he heard nothing more of it. Another company asked him some time ago to do a journey of 10 miles to examine several horses, for which the fee would be 25/-. But the examination did not take place. On another occasion he was offered 2/6 for an examination; he declined; 3/6 was then offered, but he eventually received 5/-. He considered that the suggestion of the Secretary was the best one, for then the veterinary surgeon would be responsible to the insurance company only.

The following gentlemen were agreed to for the purpose of making arrangements to interview some of the managers of Live-stock insurance offices, with the view to making an amicable arrangement, with power to act: Messrs. Mackintosh, Caton, Crowhurst, Wooldridge, Dixon, Price, and Toope.

#### FINANCIAL.

The HON. SEC. raised the question of providing funds for the payment of accounts. He now had a printer's bill for £10 18s. 9d. He and his colleague in the North thought the matter should be brought forward.

Prof. WOOLDRIDGE pointed out that the accounts and expenses incurred by the secretaries were payable by the Treasurer of the National Society direct. Therefore on receiving the accounts initialled he would be pleased to settle them. It was a more business-like arrangement than making a grant of some £20 to each section. Owing to the affiliation scheme the individual subscriptions had been reduced by 3/-, and that was compensated for by 1/- affiliation fee by the various members of the affiliated divisions; but as the increase in numbers would increase the expenditure, and the diminished income was not likely to meet that expenditure unless the various divisions impressed on their own members the necessity of joining the National, to replace 3/- per head from members of the Society, and have it made up by 1/-, was bad finance. The bill for the Proceedings of the Association this year was £101 13s. 8d., including the printing of the various papers which were circulated before the meeting. Last year's total for the same items was £82, in the year previous to that it was £74, and a year further back £68. He could not think of means for reducing the expenditure, and he hoped every member would impress on every veterinary surgeon the desirability of joining the National, and thus increase the income.

Mr. CROWHURST said that in season and out of season he had made a practice of asking veterinary surgeons whether they belonged to the National. That organization should become the greatest power in the profession, he would even prefer the work of the National to that of the Council, because the scheme of the National embraced all that the profession required. If the mass of the profession joined it, they could speak as one voice and go forward, for not only Great Britain but also for Ireland. His great aim at the Monday's meeting was to prevent their societies being divided up too much. Previous to the starting of their youngest society, the South-Eastern, he did not think anything had been done for the private practitioner, in which he included the veterinary inspector. After a man had left college, he was like a sheep on the mountain without a shepherd, though of course while the man was a student he was well looked after. In the last quarter his receipts from fees had been two-thirds more than his average. Yet in getting the extra payments there had been no friction. He hoped all the local associations would adopt a similar course.

Prof. WOOLDRIDGE said that in regard to the advantages of joining the National direct, he would point out a possible danger. Various members of the Affiliated Societies who were not members of the National might say that as their Society was receiving all the informa-

tion from the National, there was no necessity for them to pay any more so as to secure those benefits. But against that he would mention that they would receive a copy of the Proceedings, which cost 5/- per volume to produce.

#### NAME OF THE ASSOCIATION.

The HON. SECRETARY said he wished the name of the Association to be settled, whether it should be "The National Veterinary Association," or "The National Veterinary Medical Association."

Prof. WOOLDRIDGE said that in the amended Rules the title was the National Veterinary Medical Association. It was altered under protest, but it was done in order to bring in the Irish societies. Those Irish societies had gained certain facilities in the Courts of Law under various Acts, by being able to show that they were members of a medical body, and the Irish members would not join in the scheme unless the word "Medical" was added to the title.

The HON. SECRETARY said two other suggestions were, that the various divisions should be known under the names of their divisions, thus their heading would read, National Veterinary Association Southern Counties Division, without the necessity of repeating the full title every time. The other was that members of Divisional societies should pay one entrance fee, which would include the 8/6 to the National Society.

Prof. WOOLDRIDGE said the latter suggestion would probably turn out to be an excellent one, and it would save him a good deal of work. But it would be better for them to feel their way for a time, as there had not yet been a year's working under the present rules; and then they would have an idea as to how the rules would fit them.

The SECRETARY also raised the question, for Mr. Pillar, whether the usual notices of meetings should be continued, or whether it would be sufficient to intimate them in the veterinary Press, and so save postage. He, Mr. Toope, was not personally in favour of that, as it interfered with the personal touch.

Mr. CROWHURST remarked that, unfortunately, all veterinary surgeons did not read the veterinary papers.

Prof. WOOLDRIDGE thought the matter should be decided by each branch by itself.

It was agreed that notices should still be sent as usual, and the meeting terminated, with a vote of thanks to the Chairman and Secretary.

THEO. C. TOOPE, M.R.C.V.S.

#### SOUTH EASTERN VETERINARY ASSOCIATION (Concluded from p. 662.)

TUBERCULOSIS ORDER, 1913, by THEO. C. TOOPE.

#### DISCUSSION.

Mr. EBBETTS said, could he take it that the veterinary inspector was called in to examine the animal, and if he thought it a suspicious case of tuberculosis he then applied the test if he obtained the permission of the owner.

Mr. TOOPE: He has to determine whether the cows are free from tubercle.

Mr. EBBETTS asked whether it would not be more practical to test the animal without having anything to do with the milk?

Mr. TOOPE: It is the inspector's duty to test the milk for tubercle. The letter of advice states positively that the milk samples are to be taken with the intention of a bacteriological examination being made of them. If they did not feel competent to make the bacteriological examination they must employ others to do it—and pay them for it. That duty was not so difficult as some believed.

Mr. HIBBARD said in his district he had a case where a sample of milk had been taken, and it had been sent away to a bacteriological laboratory and a charge of two guineas was made for the analysis.

Mr. CAUDWELL said he thought they were all aware that eminent bacteriologists might have milk sent them from a tuberculous udder and yet fail to find the tubercle bacilli. What confirmed their opinion that an animal was suffering from tuberculosis was the tuberculin test—if there was good re-action.

Mr. TOOPE said the owner might object to the tuberculin test, even if the tubercular germ had been found in the milk.

Mr. CAUDWELL said he did not think many objections would be raised. They might have to test again without knowledge of it having already been tested. Did they not think it would be a good practice, with the acquiescence of the Board, for only veterinary inspectors to apply the tuberculin test? Perhaps they had better test again a month or so later, where such doubt existed. He thought he should adopt that plan if it were permissible to do so. Mr. Toope had said they should take the temperature twice before applying the test and three times afterwards, but he thought it was difficult to go nine hours afterwards. He would suggest the twelfth, sixteenth, and twenty-first hours be as practically about as good as any. They could not always attend when they wished; something or other often prevented. He noticed there was no provision for a re-test supposing an animal showed only slight re-action. If they tested but got no re-action, what was to be done? Were they to allow the man to use the milk or to re-apply the test a month hence? There was no order for a re-test as in the case of glanders. How was the carcass to be disposed of? If it was to be buried there was nothing said as to who was to pay for the burial, whether the owner or the local authority. Supposing they found only slight lesions, what were they to do with the carcass? He supposed it was to be used for food. They ought to all work on the same system.

Mr. TOOPE: The carcass becomes the property of the local authority; parts may be salvage.

Mr. E. LYNE DIXON said he thought in the first place their thanks were due to the President for calling them together that day to consider that subject, also to Mr. Toope for the capital paper he had prepared for discussion. He might say he agreed entirely with the remarks of the previous speaker. With regard to the tuberculin test if they found it re-acted they could come to the conclusion that the animal had tuberculosis, but it did not follow that the animals were tuberculous because they were thin. They might be suffering from other diseases. The responsibility upon them was great, and their reputation depended on the correctness or otherwise of their diagnoses.

The PRESIDENT said he rose to dispel a certain amount of mist. He did not think gentlemen in that room were not fully competent to determine whether it was a case of tuberculosis or not. He did not mean there never was a case arise where there was no difficulty, but the greatest trouble he looked forward to was where they got one practitioner trying to take the rise of another. If they were true to themselves and if they did not make unpleasantness they would meet with little difficulty in dealing with tuberculosis. He had no doubt their experience was the same as his. He had tested many cows with tuberculin and it was a very safe test to rely on. He did not think anyone was more competent than they were themselves—if they arranged that tuberculin was not in the hands of farmers and agents. It ought to be only used by veterinary surgeons. If he had tested an animal, and he knew that an inspector was coming to inspect an animal he should tell him so in order to assist him, and he was sure every gentleman in the room would act as if he were attend-

ing a private client's animals, and would tell the inspector that he had used the tuberculin test and also tell him what was the result of the test. That would be very valuable in helping him in his decision. He knew some dairymen and some stewards who were dabbling with tuberculin, but in his opinion the Government should make an order that they should not be supplied with tuberculin in that way. The last lot he tested was thirty cows, nine months ago. He had no difficulty and the man did not dispose of them. He (Mr. Crowhurst) told the man that there were two ways of dealing with them, he could either act the honourable part, or he could feed them. That was before the new Order was in force. He could have got a certain amount of flesh on them and he could have sold them for food. He told him of that course and also of the more honourable course, and the man adopted the more honourable course. He (the President) made a post-mortem examination of those that had re-acted. He had no trouble in any of those cases and he felt confident in the tuberculin test, but with regard to the value, he had trouble. He valued some horses with glanders and another veterinary surgeon said they were worth more; but he said he had given his decision and they could take what course they liked. He did wish to impress upon them never to go in and put 30s. more value on an animal than had been put on by a brother practitioner; if they did they were fighting against one another. He had always held to his own opinion, he believed that was all that was expected of them. The tuberculin test was a most valuable aid, and if they could induce the Government to forbid the sale of it by agents they would be rendering a great assistance in ridding the country of this disease. That matter should have been taken up years ago. He felt confident that there was nobody more capable than the veterinary surgeon, and he was sure the owners of stock had more confidence in them than in any medical officer who would like to come before them, and they the owners, had had not a very high opinion of the Board of Agriculture because of the laymen who were sent down.

Mr. G. W. DUNKIN pointed out that the Order did not say veterinary inspectors must carry out the bacteriological examination, but that they might.

Mr. GREGORY said within the last six weeks he had sent a sample to Prof. Cave and the report he had received was that he could not find the tubercle bacilli, and at the same time he informed him that he did not look upon his decision as final. With regard to the ante mortem examination he thought Clause 4 made it plain that if the owner agreed to have the test applied, it took from the inspector the testing of milk.

Major EDWARDS asked whether it would not be well to suggest that the tuberculin test should be regarded as reasonable.

The PRESIDENT said it was evident they had to carry out the Order as it stood, remarking that the Board of Agriculture were very jealous as to their suggesting alterations or in any way interfering.

Mr. GREGORY said in case the owner still objected, the matter was to be settled by the Board of Agriculture.

Mr. TOOPE said they could keep the animal isolated and refuse to let the milk be used. They could penalise the owner in that way.

Mr. GREGORY said any suggestion they made as to the wording of the Order would be useless.

The PRESIDENT said their business was to discuss those matters and form an opinion, so that they could approach the County Council with their views, not as to altering the Order but to carrying out of its provisions.

Mr. EBBETTS said he thought tuberculin ought to be supplied from one course. He had had tuberculin from



different sources and some reacted 'more' than others. There should be one source of supply and he would suggest that the Board supply it, or the County Council.

Mr. TOOPE said the tuberculin supplied from the Royal Veterinary College was the best he had used.

Mr. EBBETTS said he thought it should only be used by veterinary surgeons, and that there should not be free use by everybody.

Mr. GREGORY said he knew Liebig's insisted on the use of tuberculin supplied by Pasteurs.

Mr. LYNE DIXON said they had spoken about applying the tuberculin test in suspected cases, but the application of the test was of little avail unless they were quite sure that the animals that had reacted had been disposed of by the owner. Were the animals to be destroyed or what was going to be done with them?

Mr. EBBETTS said under the Order the animals had to be destroyed.

The SECRETARY said they appeared to have dealt with the first four subjects he had suggested for discussion, namely, the suspected animals with udder disease, the ante-mortem examination of emaciated animals, and also the application of the tuberculin test. He thought also they were practically agreed as to the value. The next they had dealt with, the microscopical examination of milk, faeces and other discharges. That seemed more or less a stumbling block, but there was not so much in it as some thought, and if one gave it a fortnight's study with a decent microscope, any one of them could deal with it. The valuation of animals was a question likely to cause more dissension between veterinary surgeon and client than any other. It was one of those matters that ought to be considered very carefully. Now they had considered it they should put themselves in a position to represent to the local authorities what they thought of that as well as the other details. He would suggest later that a committee be formed for the purpose of dealing with the whole subject with the County Council, and asking the County Council to call them into consultation before they decided the matter. He thought that was the proper way of going about it.

The PRESIDENT said their Secretary had very properly spoken of the question of valuation as being of serious importance. They knew as practical men that in the past, owners had expected they were going to be well paid because they took their animals. Their estimate of the worth of a cow was what it could put into the pail. What it put into the pail was left out of their consideration and they pressed for as high a value as possible on their animals that were diseased. Veterinary surgeons might make mistakes or differ as to the value by a few pounds. They had to turn their attention to the Order and to arrive at what they thought was an honest value. Owners often resented if their own opinion and that of the veterinary surgeons disagreed, and then said they would have another opinion. He was glad to see that under the Order there was a certain penalty when they made that suggestion, and that they did not fare so well when they called in another opinion. He should have been glad if the Government had taken the value out of the hands of the veterinary surgeons. He told the Committee at Maidstone that he did not think they should be called upon to value, but he did not think there would be much difficulty. The great point to remember was to never give two opinions. He should insist on knowing what an animal had been valued at previously before giving another opinion, and he should not differ by 30/-, £2 or £5 from his brother practitioner. He thought they were right in not doing so. If they made up their minds that it was a case of tuberculosis they had got to value that animal as if it were without tuberculosis, and also value it as if proved

to have tuberculosis. They had to make two valuations but there would not be much difficulty if they supported each other in that matter.

Major Edwards asked as a matter of information what value the President put on a tuberculous animal.

The PRESIDENT said if wasted, some were not worth more than 30/-. The size of the animal and the quality of the animal were factors to be taken into consideration when arriving at the value. He should inquire how many gallons of milk the cow was giving and how long the owner had had her. He would listen to what the owner had to say and then form his own opinion as to the value afterwards.

Mr. TOOPE said this Order had accepted the recommendation of the first Commission. The second Commission said that if animals were not generally diseased but locally so in glands, etc., they were fit for food, but the first Commission said that if diseased at all it must be destroyed. He took it that they must first value the animal in its present condition and the next valuation was if the animal was tuberculous, which valuation was a quarter of the first valuation. There were two bases upon which they had to put the valuation. If a cow was worth £18 in its present condition and they suspected it to be tuberculous they had to put a second valuation on it which was £4 10s.

Replying to Mr. Ebbetts, Mr. TOOPE said supposing their diagnosis was not proved correct on the post-mortem examination, then they had to allow the £18 plus £1 and the authorities had to pay it. The latter was put in to compensate the owner from any mistakes that might be made and the consequent trouble involved. Supposing it showed slight signs of tuberculosis then they had to allow a three-fourths value. The valuation must never be below 30/- or more than £30. They had to write two certificates before they tested the animal.

Mr. CAUDWELL said it seemed to him they must decide what "slightly affected" meant. Reference had been made to the finding of the Royal Commission. The Royal Commission recommended that the carcase if otherwise healthy shall not be condemned, but every part of it containing tuberculous lesions shall be seized. (1) When the lesions are confined to the lungs and the thoracic lymphatic glands; (2) when the lesions are confined to the liver; (3) when the lesions are confined to the pharyngeal lymphatic gland; (4) when the lesions are confined to any combination of the foregoing but are collectively small in extent.

Mr. TOOPE said what was dealt with in the Order was advanced tuberculosis characterised by—1. Tuberculous deposits in udder; 2. Peritoneal, pleuritic or visceral deposits; 3. General tuberculosis with emaciation; 4. Other lesions likely to contaminate milk or otherwise spread the disease as pointed out in his paper. In the cases mentioned they must destroy, but not in slight cases when the lesions were confined locally.

Mr. EBBETTS said if the carcase was fit for food to whom was the matter reported.

Mr. TOOPE said he took it, it went to the county authority, and the man received compensation as under the Contagious Diseases (Animals) Act.

Replying to many points raised in the discussion, Mr. TOOPE said they had learned a considerable amount of the method of procedure under the Contagious Diseases (Animals) Acts. Mr. Caudwell's first suggestion of the double test was excellent. He had adopted it on more than one occasion. He also agreed with the suggestion as to the injection of tuberculin and the ophthalmic reaction, where they knew the animal had been previously tested. As to the microscopical examination of milk, it might be unnecessary, and possibly was, but if they had not done it now, they would have to be prepared to do it hereafter, as the Milk Act would insist on the inspector doing it. A suggestion was made at the



Royal Sanitary Institute that sanitary inspectors should be educated to do that on behalf of the medical officer of health, but was it the duty of the sanitary inspector or the veterinary surgeon to do this work? He asked them that in all seriousness.

Mr. TOOPE said he did not say it was not the veterinary inspectors' duty nor that it was too difficult for them to undertake—the very reverse. Given an efficient instrument and with a little bacteriological knowledge they would soon become proficient. He agreed with Mr. Crowhurst that tuberculin was a safe test. It had been much decried, and at the Sanitary Institute on the 11th March it was said to be worthless by a gentleman who ought to have known better. Tuberculin should not be obtainable by everyone, but should only be supplied to veterinary surgeons. It should be standardised, and all supplied from the same place. If he had the power he would insist that every veterinary surgeon should recognise one brand and use it. They would then not have many of the indifferent results they had at the present day. But there were different ways of using tuberculin. They might, and very easily, introduce other bacilli with it and altogether upset their test. Therefore it should be aseptic, and it should be standardised. The hours of testing was another question. He had tested between 600 and 700 animals and he had found his greatest reaction at the twelfth hour, but there were frequently cases where the reaction occurred within six hours and nine hours, and some he had seen at twenty-four hours. There was no one who could get the confidence of the owner better than the veterinary surgeon, and if he carried out the duties in a fair, gentlemanly, and professional way he had not the slightest doubt that they could persuade their best clients—if they even disagreed with them, to accept their opinions and accept cheerfully. The idea of the Order was to try to get agriculturists and cow keepers to work with them and not against them. If they strove in that direction he was sure they would do more than by attempting to force the Order. With regard to Mr. Gregory's remarks as to the microscopical examination of milk and other things, there was no doubt it would be well if they could send those things to bacteriological laboratories where they could get them tested at a reasonable figure, but were they likely to pay two guineas to have it done for them? He agreed with Mr. Dixon that diseased animals had not been disposed of in the past, but they would have to be now somehow or another. It would be most interesting, as Mr. Caudwell had suggested, if they could get someone to give them a paper on the method of detecting tubercle bacilli. He had no doubt he could arrange that. He wished to point out that in valuing they must consider a cow's worth in its present condition, taking into regard its possible supply of milk, or its value for human food. They must deal with the animal's value in its present condition and not any inflated value that a pedigree conferred, and if the value exceeded £30 the matter must be referred to the Board of Agriculture to deal with. He thanked them for the full discussion they had given to the paper.

A committee was appointed to meet the County Council, to consist of the President, the Secretary, Messrs. Lyne Dixon, Hogben (Ash), E. Ebbetts, and C. Crowhurst.

On the suggestion of Mr. TOOPE, this committee was constituted Standing Veterinary Inspector's Committee of the Society.

The PRESIDENT said Mr. Toope and himself were present at the February meeting at Red Lion Square and the meeting was kind enough to put him (Mr. Crowhurst) in the chair when they discussed the fees recommended by that Association, and which they had already obtained. At the meeting there was a very influential lot of gentlemen present from different parts of the country, a very representative body of their profession.

The meeting was almost unanimous, there being only one voice in opposition—which did not find any support. It was on the fee for testing for tuberculosis and the fee of £3 3s. for 8 animals or less was held to be absurd by this one person. If one had to drive out a number of miles and had to take the temperature at the time of the injection, once previously and three times afterwards, a fee of three guineas was no more than fair compensation for the time and skill brought on the subject. He (Mr. Crowhurst) looked upon the National as a great and useful body to which the local associations could send matters after discussing them, and he hoped everybody would belong to it and make it a very strong body indeed.

The President, the Secretary, Mr. Caudwell, and Mr. Dixon were appointed delegates to the Inspectors' meeting on the following Monday.

The PRESIDENT said he did ask every member of the Society to belong to the National Society because the National could do more for them than anything he knew of.

The SECRETARY reported upon the progress being made with regard to the question of fees allowed by insurance companies for the examination of animals, but the matter was deferred till the next meeting of the National Branch Society, on the 9th inst.

The SECRETARY said it had occurred to some of them that they were badly represented on the Council of the College and he had asked two of his personal friends to nominate Mr. James Crowhurst, and he (Mr. Toope) wanted all the members to do their best in his interest to get him on the Council. He was sure if Mr. Crowhurst was elected that he would make his own voice heard on the Council as he had made his voice heard elsewhere in the interest of the general veterinary practitioner. He (Mr. Toope) knew no one who would be better represent their Society on the Council or on the southern branch of the National than Mr. Crowhurst. A lot of work would have to be done, but if they would allow him to suggest it he was going to ask the members to each take a county and write to the members right through the southern counties and ask them for their support for Mr. Crowhurst. He believed that would do much towards securing Mr. Crowhurst's election. He (Mr. Toope) felt certain they were not represented as they should be, for through the whole of the southern counties there were only two members on the Council of the College if we except London, while Yorkshire and Lancashire had twelve or thirteen representatives. The members of the Southern Branch of the National numbered 163, while the members of the societies associated with the Southern Division were something like 480, so that at any rate from a Society point of view they were badly represented. He thought it was the duty of everyone in the south to assist in getting more representatives on the Council of the College.

The PRESIDENT said he rose with considerable pleasure to thank them for the support that they were giving him. That matter came upon him with very great surprise, because he had no ambition to be on the Council of the College until it was suggested to him by his friend Mr. Toope. He also wanted to thank his proposer and seconder, Mr. Dixon and Mr. Huband. If he were elected he should do the best he could in the interest of the veterinary practitioner, who had been terribly left out. There were plenty of professors on the Council, but they wanted someone there to represent the general practitioner. He thought he could say without any conceit at all that until that Society was started—and in his address he advocated increased fees for inspection and also for examination of animals that were insured, and in regard to the Board of Agriculture's treatment towards them, the latter brought forth a very excellent paper from Mr. Dixon in support of what he said—until that had been done he did not



think anything had been done by their leaders to assist local veterinary practitioners. The matters he mentioned could have been done long before. Should he be elected he would do what he could on the Council for the benefit of the profession, and it would be a pleasure to him to do it.

A vote of thanks to the President, proposed by Mr. Caudwell closed the meeting.

THEO. C. TOOPE, Hon. Sec.

#### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS.

A Special General Meeting was held in the Throne Room of the Holborn Restaurant on Wednesday, April 30th. The following gentlemen were present: J. R. Hayhurst, London; W. W. Goldsmith, Hitchin; Wm. Pauer, Blackwater; Percy S. Howard, Wanstead; William Hunting, London; W. H. Brooke, Handsworth, Staffs.; E. Brayley Reynolds, R.V.C. London; G. H. Harris, Sawbridgeworth; W. W. Grasby, Daventry; Wm. Dale, Coventry; L. W. Heelis, Solihull; F. W. Robards, Dartford; R. L. Phillips, Loughborough; Walter W. Golding, Hertford; Alfred Over, Rugby; John B. Tutt, Winchester; E. J. Mellett, Henley-on-Thames; A. Renfrew, Broadway; John Buckingham, Harleston; D. S. Jack, King's Lynn; A. C. Holl, New Buckenham, Norfolk; H. H. Hide, Edmonton; Sidney Villar, Amersham; E. W. Morris, Uckfield, E. Sussex; W. Caudwell, Chertsey; W. Penhale, Holsworthy; James Crowhurst, Canterbury; Thos. A. Huband, Kingsdown; J. G. Parr, Leicester; C. Wood Page, Banbury; James Martin, Wellington, Salop; Richard Hughes, Oswestry; Arnold Porritt, Preston; G. H. Locke, Manchester; J. S. Drabble, Halifax; Arthur N. Foster, Clifton, Derbyshire; Henry Phillips, Ipswich; Munro E. White, Petersfield; R. Bryden, London; W. H. Edwards, A. Gallenkamp & Co., London; J. Davies, Brockley, S.E.; Theo. C. Toope, Dover; John Dunstan, Liskeard; J. W. Brittlebank, Manchester; Abraham Green, Dudley; Fredk. Leeds Gooch, Stamford; R. A. Philp, Brentwood; A. R. Routledge, Louth, Lincs.; W. T. Brookes, Warwick; W. J. Arkcoll, Bayswater; G. Wartonaby, Burton-on-Trent; H. Moore, Worksop; Sydney E. Morton, Middlesboro'; Geo. A. Banham, Cambridge; G. H. Elder, Taunton; P. G. Bond, Plymouth; Arnold E. Roberts, Chepstow; A. C. Burton, Battle, Sussex; J. H. Ripley, Hurst Green, Sussex; W. D. Halfhead, Ongar, Essex; Malcolm Armfield, London; J. T. Abell, Derby; Jno. Malcolm, Birmingham; J. A. Gold, Redditch; Geo. Edwd. King, Abingdon; Joseph Abson, Sheffield.

Letters of apology for non-attendance were received from the following:—Messrs. J. Forbes, Truro; G. Elphick, Newcastle-on-Tyne; J. P. Railton, Buih; F. W. Watchorn, Newtown, Montgomery; F. Morton Wallis, Halstead; T. D. Hughes, Woodstock; T. Slipper, Sutton Coldfield; J. R. Dykes, Wellingboro'; W. Graham, Minehead; W. Shipley, Great Yarmouth; W. E. Ison, Atherstone; Hugh Begg, Hamilton, Lanark; J. W. Pritchard, Brighton; J. B. Young, Braintree; E. L. Dixon, Margate; Dyer, E. Grinstead; G. P. Male, Reading; J. Clarkson, Garforth; Williams, Chippenham; Owen, Thame; Crowhurst, Maidstone; James East, Aylesbury; H. J. Dawes, West Bromwich; John Brown, Invergordon, and other gentlemen.

#### REPORT OF EXECUTIVE COMMITTEE.

Appointed to prepare a scale of suggested fees for work in connection with the Tuberculosis Order, 1913, and to make recommendations as to the formation of an Association of Veterinary Inspectors, draw up rules, etc.

A meeting of Executive Committee was held at the Grand Hotel, Birmingham, on Monday, April 21st.

Present: Messrs. J. Abson, T. C. Toope, H. J. Dawes, John Malcolm, J. A. Gold, E. L. Dixon, J. W. Brittlebank, and Trevor F. Spencer.

On the proposition of Mr. Brittlebank, seconded by Mr. Dawes, the chair was occupied by Mr. J. Abson.

Letters and telegrams apologising for non-attendance were read from Messrs. George Elphick, Geo. King, G. P. Male, Hugh Begg, and Dunstan.

Lists of proposed fees were received from Messrs. Geo. Elphick, G. P. Male, and other gentlemen.

The whole question was most thoroughly discussed, and finally the scale set out below was adopted on the proposition of Mr. Toope, seconded by Mr. Dixon, the whole of the members present voting for the resolution, except Messrs. Dawes and Malcolm who did not vote.

For first inspection of suspected bovine animal on receipt of notification by the police	10 6
For inspection of each animal after the first up to a maximum of three guineas	1 0
Charge for mileage, one way, per mile	1 0
For microscopical examination of milk or other suspected material from any one suspected animal, to include repeated examinations if such should be considered necessary whilst the particular animal is under suspicion. Journeys not to be duplicated	10 6
For biological examination of suspected milk or other suspected material; the fee actually paid to third party, not exceeding	1 1 0
For applying the Tuberculin Test, up to and including four animals, on the same premises	2 2 0
Beyond four animals, extra per animal, on the same premises	5 0
Mileage charge during Tuberculin Test, one journey only at 1/- per mile one way.	10 6
Post-mortem examinations, each and mileage charge 1/- per mile one way.	
Out-of-pocket expenses for slaughterman extra.	

#### Travelling Expenses:

Cab fares; amount actually paid, vouchers to be produced.

Rail fares. 2nd Class where available, in other cases 1st Class fare.

For valuation of a suspected animal, no charge.

#### Report of the Executive Committee as to the procedure recommended by them in the Formation of an Association of Veterinary Officers.

That the Association be styled "The National Association of Veterinary Inspectors."

That it consists of a President, Vice-Presidents, Council, Honorary Treasurer, Honorary Auditors, and Honorary Secretary, and that the membership be confined to Veterinary Inspectors of the Board of Agriculture and Fisheries, Veterinary Inspectors under the Contagious Diseases (Animals) Acts, and Veterinary Inspectors holding appointments under the Public Health Authorities.

That the objects of the Association be:—

1. To devise means by which all Orders dealing with the contagious diseases of animals may be carried out in a systematic and uniform manner by the veterinary officials concerned.

2. To place in the hands of members, by means of pamphlets and demonstrations, the most approved methods of diagnosis in connection with the diseases in which they are more particularly interested.

3. To support members in approaching Local Authorities, where such action may be considered expedient, with a view to securing for veterinary inspectors a more uniform scale of remuneration; and generally to safeguard the interests of members.

*Affiliation.* The committee recommend that the Association be affiliated with the National Veterinary



Medical Association at an affiliation fee per member of one shilling.

The annual subscription fee to be five shillings per member, to include the cost of affiliation.

The Committee further recommends:—

That the first president be Mr. Joseph Abson, F.R.C. V.S.

That the first vice-presidents be Messrs. P. G. Bond, Wm. Shipley, W. Woods, James Crowhurst, T. C. Toope, F. Garnett.

That the Hon. Treasurer be Mr. J. W. Brittlebank.

That the Hon. Auditors be Messrs. B. De Vine, W. S. Carless.

That the Hon. Secretary be Mr. Trevor Spencer.

That the Council of the Association number twenty-four, and that the first Council consist of the following gentlemen, viz.: Messrs. John Malcolm, Birmingham; E. L. Dixon, Margate; Geo. Elphick, Newcastle-on-Tyne; Geo. King, Abingdon; H. J. Dawes, West Bromwich; J. A. Gold, Redditch; G. P. Male, Reading; H. Peele, Durham; G. H. Locke; Hugh Begg, Hamilton, Lanark; E. Dunstan, St. Mellion, Cornwall; R. D. Williams, Aberystwith; R. Hughes, Oswestry; G. Elder, Taunton; W. T. Brookes, Warwick; Geo. Wartnaby, J. Clarkson, Garforth; W. H. Brooke, Handsworth; T. Duckworth, Ashbourne; and R. C. Trigger, Newcastle-under-Lyne; D. G. Davies, Swansea; W. W. Grasby, Alex. Munro, Altrincham; R. Barrow, Blandford.

On the proposition of Mr. Dixon, seconded by Mr. Malcolm, the Hon. Sec. was instructed to call a special meeting of all veterinary inspectors to be held at the Holborn Restaurant, W.C., on Wednesday, April 30th, for the purpose of submitting for consideration and ap-

proval the reports of the Executive Committee dealt with herein, the announcement of such meeting to be advertised in the next issue of *The Veterinary Record*.

On the proposition of Mr. H. J. Dawes, seconded by Mr. Dixon, it was unanimously resolved that the Hon. Sec. be reimbursed for the costs he has incurred up to date so soon as the necessary funds are in the possession of the Hon. Treasurer.

On the motion of Mr. Toope, seconded by Mr. Malcolm, a unanimous vote of thanks was accorded to the Chairman for presiding, and the meeting then terminated.

#### Slaughter of Young Calves.

At the annual meeting of the National Federation of Meat Traders, Mr. T. Masheter moved the following resolution on behalf of the Blackpool Association:—

"That the Federation take action calculated to stop the slaughter of calves under the age of one month, and that the National Chamber of Agriculture be approached, and their assistance be invited."

He said that over 300 of these immature calves were sold per week in Preston Market. They were from really good cattle, and would rear splendidly if left till over a month old, but they were hurried to market soon after they were born for the sake of the milk.

The President observed that if they were content to allow this wholesale slaughter of young stock to go on, they must expect fictitious prices for store cattle and milch cows to rule.—*M. T. J.*

#### DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy).		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended April 26	19		19				5	14	50	99	2	85	1441
Corresponding week in	1912	18		18			8	6	54	93	1	91	1101
	1911	22		28			4	4			8	78	782
	1910		25	33			10	18			4	22	195
Total for 17 weeks, 1913	234		251				60	198	1236	2565	112	690	9230
Corresponding period in	1912	394		444		1	57	132	1771	3972	150	1106	14025
	1911	342		398		18	71	214			292	755	7969
	1910		522	645			124	312			301	381	3032

† Counties affected, animals attacked: Hertford 1, Kent 1, London 1, Stafford 2, York, West Riding 9. Board of Agriculture and Fisheries, April 29, 1913.

IRELAND. Week ended April 26												Outbreaks			
...	...	...	...	...	...	...	...	...	...	...	...	2	7	2	85
Corresponding Week in	1912	...	...	...	...	...	...	...	...	...	...	...	7	4	44
	1911	...	...	...	...	...	...	...	...	...	...	1	8	1	67
	1910	...	...	...	...	...	...	1	2	...	...	...	14	8	113
Total for 17 weeks, 1913	...	...	...	...	...	...	...	...	...	...	...	79	245	48	288
Corresponding period in	1912	...	1	1	...	...	...	...	...	...	...	31	240	87	713
	1911	...	8	8	...	...	...	1	2	...	...	87	224	45	799
	1910	...	4	6	...	...	...	1	2	...	...	29	291	29	685

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, April 28, 1913

Note.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

**Imported Cows' Udders at Hull.**

At a meeting of the Hull and Goole Port Sanitary Authority, Mr. James McPhail, the Food Inspector, stated that a number of udders which came from Copenhagen to Hull in the steamship *Floren*, and were affected with tubercle, were reported to the Local Government Board. These udders, which used to be imported in a raw condition, went to the big provincial centres, where they were in great favour among working people as a supper dish. Latterly, however, they had been imported cooked, and could not be properly inspected, as they were trimmed up ready for sale, and bore the official certificate, so that the Hull officials had no authority to seize them. They were, however, examined, because such a lot of bad stuff had been sent through, though certified as sound at the port of shipment.

**Perthshire Dairy Cows.**

Mr. John Brown, v.s., reported at a meeting of Perth District Committee that during the quarter ended 31st March he had visited all the registered dairies—89 in number—within the Perth district, and had examined in all 1282 dairy cows. He found six cases of tubercular disease of the udder, from which the milk would be dangerous when consumed by human beings. The owners agreed to dispose of the affected animals. The general condition of the animals was satisfactory, but in a few instances the owners were warned that more attention to the keeping of the animals clean was necessary.

The question of the salary to be given to be given to Mr. Brown for his services was raised. Mr. Thomas Hollingworth moved, and Mr. McMillan Cherrybank, seconded, that the salary be £50 a year. Mr. George Pople, Newhouse, moved that the salary be fixed at £40, and Colonel Drummond Hay seconded. Ten votes were given for each proposal, and the Chairman (the Hon. A. D. Murray) gave his casting vote in favour of the amendment to fix the salary at £40.—*N. B. A.*

**Personal.**

On the visit of the King and Queen to Newcastle-under-Lyme on the 22nd ult., the Ex-Mayor, Mr. R. C. Trigger, F.R.C.V.S., had the honour of being presented. The Deputy-Mayor, Mr. T. A. Trotter, M.R.C.V.S., was also presented.

Mr. Trotter was appointed Deputy-Mayor by Mr. Trigger during his two years of office and retains the position under the present Mayor. Their Majesties the King and Queen cordially shook hands with all the gentlemen presented.

Mr. BAIRD, Dumfries, was awarded third place for his Parkhall Vanara, in the three-year-old filly class, light horse section, at Kilmarnock Show last week.

**ARMY VETERINARY SERVICE.****Charles Steel, F.R.C.V.S.**

We regret the death at Bedford on 20th April, 1913, of Inspecting Veterinary Surgeon Charles Steel, retired pay, Army Veterinary Department, aged 83 years.

This Officer was born 1st June, 1830, graduated May 14th, 1851, and received the F.R.C.V.S. degree on February 20th, 1877. He joined the Army on 9th October, 1855, and was posted to 6th Dragoon Guards and 10th Hussars until 10th August, 1857, when he was gazetted Veterinary Surgeon R.A., was transferred to 12th Lancers, 2nd December, 1859, and did duty with that regiment until 12th August, 1876, when he was

transferred to 16th Lancers. Promoted Inspecting Veterinary Surgeon 17th March, 1881, and was Administrative Veterinary Officer of the Bombay Command until 1st June, 1885, when he was placed on retired pay. Inspecting Veterinary Surgeon Steel was in possession of the medal for Afghan War, 1878-9, and was granted a Good Service Reward of £60 per annum.

**OBITUARY**

J. W. THOMAS, M.R.C.V.S., Tamworth, Staffs.

Graduated, Lond.: May, 1893.

Mr. Thomas's death occurred on April 2nd.

JAMES ALBERT ALLEN, v.s., Hawkhurst, Kent, died on April 20th, from exhaustion, supervening on chronic bronchitis. Aged 73 years.

**CORRESPONDENCE.****OXYGEN v. AIR, IN MILK FEVER.**

Sir,

I should like the opinion of the profession on the comparative merits of the "pure oxygen" and "pure air" inflammations, in the treatment of milk fever.

This season, I have had several cases which, after having been treated with the oxygen injection, accompanied with scrupulous cleanliness, the cows have got up within a few hours, only to go down with a second attack, which occasionally ended fatally.

I should like to know if other practitioners have experienced the same difficulty, and whether this occurs more frequently with oxygen than with air.—Yours faithfully,  
ONE INTERESTED.

**TUBERCULOSIS ORDER OF 1913.**

Sir,

One has heard and read frequently, since the new Order has been before the profession, statements uttered by men in high places to the effect that diagnosis of "tuberculosis of the udder" in the cow is rendered easy, by the recognition of tubercle bacilli, when smears made from the deposit obtained by centrifugalising milk taken from a suspected udder are stained by the Ziehl-Neelsen method, and examined microscopically (1-12th O.I. lens).

This is perfectly correct so far as it goes. It is correct to say that clinical diagnosis of tuberculosis of the udder is by no means easy, and it is equally correct to state that it is very difficult indeed, in fact it is often impossible to find tubercle bacilli in smears made as stated from many cases of tubercular mastitis which are clinically suspicious, even though one takes care to massage and knead the suspected quarter or quarters immediately before securing the "stripings," or "strappings," as the specimen of milk for examination.

If a careful clinical examination of cows' udders is made it will be found to be necessary, after negative microscopic examination, to proceed to the biological test of milk from many suspected udders, unless nearly ninety per cent. of genuine cases of tuberculosis of the udder in the early stages of the disease are to be declared non-tubercular.

In following up a tuberculous mixed milk sample from a large herd of cows, where on examination of the animals one has not the least clinical suspicion of any individual member of that herd—the best method is to split up the herd into groups—taking a control sample of milk from each group. By examining this milk one finds the guilty group; and by examining the milk of the individual animals of that group one finds the member (or possibly members) of the herd guilty of voiding tubercle bacilli in the milk.

It is safe to say that one is bound to use the biological test in such a case—one does not find tubercle bacilli, with the most searching microscopic examination, until one comes to the milk of the individual animal—and often not even then. The veterinary inspector himself after tho-



roughly washing and drying his hands should draw the sample direct from the suspected teat or teats into a sterilised bottle bearing an identification mark or number, which should be noted against an identifying description of the animal furnishing the sample.

In conclusion I wish to ask some reader to kindly enlighten me on the three following points:—

I. There are many cases of cows milking on three-quarters only—the fourth quarter being “a dummy.” This fourth quarter is generally indurated (though not hypertrophied); the three functional quarters are often quite healthy, and the veterinary inspector has no difficulty in deciding on clinical grounds that there is no tuberculosis of the udder; the “dummy quarter” has been allowed to become functionless on account of acute disease or traumatic injury; the animal has no clinical symptoms of tuberculosis. In such a case is it the duty of the veterinary inspector to apply the tuberculin test?

II. Are all bovines which react to tuberculin notifiable under the Order?

III. What happens to milk after treatment as provided in Article 9? Is it to be sold or used for human consumption?

ARTHUR N. FOSTER, F.R.C.V.S.

Sir,

By the time that this article is in print, the new order will be in force. As with all other orders, the question has arisen, “*Shall the Veterinary Profession be allowed to work it themselves in harmony with the agriculturists, or will both profession and agriculture have to ‘toe the line’ as in bygone days to the dictations of the medical officers of health?*” A similar question, only put less mildly, was asked at the recent meeting of inspectors by Mr. Dunstan. The answer given to his question was unsatisfactory, and the fears expressed in Mr. Dunstan’s question are already becoming realised, as I shall show later on.

In order to work this new Tuberculosis Order, the Local Authorities if they wish to do credit to themselves must work in complete harmony with:—

1. The Veterinary Profession.

2. The owners of the cows.

The first party are the most important. Offend them, and what can they do? They can cause every inconvenience they can think of to the local authorities. They can advise the owners (1) not to have the animal slaughtered—this will cause a lot of troublesome delay; (2) to refuse to accept the value offered by the valuer (in this case, I assume that as a result of a breach between the inspector and the authority, the former refuses to value the cows or, as I shall presently show, a valuer quite unknown to either of the parties concerned [excluding the local authority] has been deputed to value the suspected cows—in this latter case, the owner is quite justified as he does not know the ability of the valuer, who we are assuming is a total stranger).

3. To refuse to allow their man to make a post-mortem examination, etc.

I will now review how some of the county authorities propose to work the Order, and I will divide them into

1. The Economisers.

2. The Spendthrifts.

3. The Non-diplomatists.

1. *The Economisers.* In the largest of the Southern Counties the local authorities are saying to their inspectors: “We are not going to pay you for a microscopical examination of milk suspected to be tuberculous when we have our own laboratory and medical officer. You must see the cows and take a sample of the suspected milk, send it to our medical officer and abide by his diagnosis.”

What a slur on our scientific intellect. Imagine Mr. Hunting, who we will say suspects a horse being glandered, having to stand by for a medical officer to carry out the mallein test, and have to abide by the officers’ decision, never mind what his own convictions might be. Would such a thing be tolerated? No. Then why should such a thing be tolerated with regard to the Tuberculosis Order?

The same authorities pay their inspectors 10/6 for a journey that costs them 25/- to go by car to. Imagine what the feeling would have been with regard to the In-

surance Act amongst the medical profession, if we had been deputed to act in a similar manner.

*The game is not worth the candle.* It is easy to see that the local authorities in these cases are being backed up by their impecunious medical officers, who no doubt would be glad of a few extra shillings at the expense of the veterinary inspector. Fancy a veterinary surgeon being asked to put his signature or give his assent to the diagnosis of a person not in his own profession. It is questionable if many medical officers of health would recognise the tubercle bacillus if they really did see it. We are being “politely” told that we are not competent enough to do the Ziehl-Neelsen method of staining the bacillus, and as to using a centrifugal machine—well! The Veterinary Profession are better educated scientifically than the medical—its members are far more practical bulk for bulk. Every veterinary surgeon if he wishes to be a success, has to be able to use the knife—not so the medical. He can be a physician, leaving all knife cases to the surgeon.

We should adopt the same attitude towards such authorities, as the medical profession did to the Insurance Act. It is the only way to bring them round to their senses. No farmer would accept a medical man’s diagnosis regarding his cows.

2. *Spendthrifts.* These are the authorities who wish to have a “rare go in.” They propose to appoint so many valuers for each district. The valuer in nearly every case will no doubt be a total stranger. Is it feasible to suppose that a farmer will abide by such a person’s valuation, when he has never seen him before, and does not know what his abilities are like? Who then are the two most liable to agree as to the value of the cow that is to be slaughtered?—the veterinary surgeon and the farmer. This is what Sir Stewart Stockman wants to be the case, but as it is not definitely laid down in the Order, the local authorities can either do what he wishes, or do the other thing. It appears, however, that in the majority of cases they will do the other thing. This will have the effect of upsetting the owners of the cows—just what is wanted to be avoided. It will also not exactly please the inspectors either, to whom the agriculturists will express their views in words more forcible than polite.

3. *The Non-Diplomatists.* These gentlemen would not be safe members of a committee appointed to deal with the Balkan situation. They propose to appoint a few farmers of a district to go round and value and inspect the suspected cows—imagine the effect upon the other farmers. It is evident to the most idiotic mortal, that such a thing cannot work. The owner of the suspected animals does not wish any of his rivals to know how many he has got bad, nor does he wish it to be “preached from the housetops,” as it would be every market day, when the “inspectors” met.

The profession must at once take up these questions and keep the “foreigner” out of all matters so vital to our interests. What is the use of learning about the diagnosis, etc., of such-and-such a disease if when in practice we are never allowed to make such a diagnosis, and if we are, not to be held correct until a “stranger” makes his diagnosis, when we either cordially assent or do otherwise. Why cannot the veterinary profession be allowed to work the act themselves? If they were allowed, in the five years time so much talked about, tuberculosis would be nearly as rare as rinderpest. Unless they are allowed to do so, the Act will be a fiasco, and tuberculosis will never abate. It would be wise, therefore, if those responsible for the Act, will make the necessary additions.—Yours, etc.,

VOX POPULI.

SPECIAL PATHOLOGY AND THERAPEUTICS OF THE DISEASES OF THE DOMESTICATED ANIMALS. HUTYRA and MAREK. American Edition edited by Mohler and Eichorn. Vol. II. Diseases of Respiratory Organs: Digestive Organs: Nervous System: Organs of Locomotion: the Skin. Large Royal 8vo. (10½ × 6½) pp. xvii. + 1018 including 20 p. index, with 163 illustrations in the text and 5 plates. No advt. Cloth lettered, 31/6 net. Printed in Chicago. London, Ballière, Tindall and Cox, 8 Henrietta Street, Covent Garden, W.C.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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## Richard Roberts, F.R.C.V.S.

It is our misfortune to have to announce the death of another leading practitioner. Mr. Richard Roberts, of Tunbridge Wells, succumbed to an attack of *Angina* on the 5th inst. Although the end came unexpectedly Mr. Roberts has suffered more than one attack. So late as April 30th he wrote a cheerful letter hoping to be able to attend a meeting of the South Eastern V.M.S. which was fixed for May 7th. At that meeting a vote of sympathy and condolence with the family was passed, and it was pleasant to hear man after man rise to express his regret, and bear testimony to the grand character of the deceased.

Mr. Roberts graduated from the New Veterinary College, Edinburgh, in 1875, and started practice in Kendal. From there he moved to Liverpool, and later settled at Tunbridge Wells, where he made a very extensive practice. His professional skill and his pleasant manner gave him a firm grip of his clients, who soon became his friends. Between him and his veterinary neighbours there was no trace of any feeling save that of good comradeship. He had during his career many pupils and assistants, and these men see a practitioner more intimately than anyone else. Mr. Roberts' pupils all speak in the highest terms of his kindness of heart and his constant attempts to help and guide them. He did good without stint, and his left hand knew not what his right did.

Although a very busy practitioner Mr. Roberts kept up to the times, and was always interested in his profession scientifically, socially, and politically. In 1893 he took the Fellowship, and in 1910 became a member of Council. This year he was a Vice-president of the R.C.V.S. He was a member of the National Veterinary Association, and a regular attendant at their annual meetings. At the Brighton meeting he was President, and the success that attended it was largely due to the labour and tact he put into his office. He was a member of one or two local societies, and wherever he went he instilled some of his energy and good nature into his colleagues. Perhaps one of his greatest claims to professional recognition is the impetus he gave to the use of anaesthetics in veterinary practice. So far back as the time when he was at Kendal he used chloroform largely, and was, we think, the first to use and recommend its administration standing. He also used a muzzle, and almost anticipated the form now known as Carlisle's.

Mr. Roberts looked forward to the meeting of the International Veterinary Congress in 1914, and was one of the few able and willing to give a donation of £100.

Richard Roberts will not soon be forgotten by his profession and the widest sympathy with his family will come from all his friends. Mr. Chas. Roberts, his son, will continue the practice.

## THE INTERNATIONAL VETERINARY CONGRESS.

Last week we printed a subscription list forwarded by Mr. Garnett, which showed how generously some of our members are supporting this fund. At the same time there are indications of increasing Continental activity with regard to the Congress. The Permanent Committee of the Congress, as a "measure of propaganda," has recommended the formation in all countries of National Committees to work for the success of next year's gathering in London. In conformity with this, Belgium has already formed a small but strong National Committee, constituted as follows: M.M. Degive, late Director of the Veterinary School, Dupuis (present Director of the School); Stubbe, Inspector-General to the Ministry of the Interior; De Roo, Chief Inspector to the Ministry of Agriculture; Léonard, Chief Veterinary Surgeon of the Army; and Erasers, chief editor of *L'Echo Vétérinaire*.

Of course these National committees will have nothing to do with the raising of funds for the Congress. That responsibility rests upon this country alone. The new foreign committees will exist for the purpose of arousing interest in the Congress amongst the veterinary surgeons of their respective countries, with the ultimate object of inducing as many as possible to visit London next year. Undoubtedly their efforts will meet with some success—perhaps with a great deal. It seems quite likely, then, that the Congress—which already promised to be the largest ever held—may be even larger than we had expected. That will mean increased expense; and the moral for us is clear.

## FRACTURE IN UTERO.

On the morning of the 12th inst. I was called to deliver a foal from a light farm mare. The head and left fore leg were already exposed on my arrival, and I had little difficulty in delivering a filly foal which was just dead. On examination of the foal I found the right fore leg, which was the cause of the obstruction to foaling, as shown in photograph.

The large metacarpal bone had evidently been fractured some time ago, and the fracture had fairly well healed up, with the ends of the bone crossed and protruding outside the skin, which has also well healed as can be seen in photo.

The shaft of the bone has become perfectly solid in the bent position. There is a history of the mare having been found down with colic three months ago, and a further history of her receiving a kick when ploughing five weeks ago. It is likely the fracture occurred on either of those occasions. The case occurred in the practice of Mr. P. J. Howard and as I have never seen or heard of such lesion, I think facts and photo may be interesting.

SAMUEL H. POWER.



## CLINICAL CASES.

By JAMES GREGG, M.R.C.V.S., Belfast.

## BLEEDING FROM BLADDER.

A brown Irish harness gelding had been in regular work for ten years. Four weeks ago he was wheeler in a drag to a race meeting, 15 miles distant. Next morning a little blood was noticed coming away with the water. The blood was more plentiful on the following day, and was bright arterial clotted blood, and was not mixed with the urine, but came away after it had been passed—we computed that he passed on the average two quarts of blood per day for eleven days. He ate well and remained in good health, but on the ninth day he was obviously weak—the membranes were bloodless and the tongue clammy. When noticed, he got an oleaginous purge, followed by linseed and bran mash, with occasional hypodermic injections of ergotine.

The day following the injection the blood was a little less, but it was invariably followed by flooding the next night.

On the eighth day I consulted my friend, Mr. J. J. Ross, who suggested sulphate of iron, a drug which he had found very beneficial in dairy cows who gave bloody milk. Two drachms were given in bolus night and morning. For first 24 hours after administration the emissions of blood were greater than ever, but from that point until the eleventh day the blood got gradually less, then it stopped completely, and has not appeared since (two weeks).

The horse seems to be putting on condition abnormally fast. Has bleeding usually this effect? It used to be so said.

## CATS POISONED WITH CARBON MON-OXIDE.

Some time ago I was called to attend two valuable Siamese cats for a lady; there had been five, but three had succumbed during the night in a mysterious way. I found that the patients were housed in a small greenhouse, which was heated with an oil stove—on examination of the stove, I found combustion imperfect. Post-mortem examination gave the orange scarlet blood (seen in CO poisoning in human subject). The two surviving cats died during the next 48 hours.

## YORKSHIRE PUPPY WITH BONE IN THROAT.

A chop bone as large as a Bantam egg could be felt in the Oesophagus, just at the entrance into the chest; it had been in this position for four days, a surgeon elsewhere having refused to operate. Cocaine and Adrenaline (Burroughs and Wellcome) was injected into the part, and after the usual antiseptic precaution, the bone was caught between the finger and thumb, and a bold incision made right into it—the bone being pulled out with forceps; it seemed to have worked great havoc in the Oesophagus. After its removal the puppy got great relief, and soon became quite frisky. No sutures were used—while the animal was feeding an attendant held the lips of the wound together.

In a week it was almost completely closed and the cure was perfect in two weeks. I record this as an example of the recuperative power inherent in all young things. Another example, a puppy (collie) swallowed a ladies' hat pin, with a knob on it about the size of a hazelnut, head foremost. It became quite rigid and was unable to walk. Examination showed something projecting at the angle of the jaw, this was cut down into, and immediately the point of the pin popped out—this was caught with forceps and pulled with considerable pressure until the hat pin was removed. When out, it was the exact same length as the patient. The recovery was uninterrupted and complete.

## ABSTRACTS FROM FOREIGN JOURNALS.

## A CASE OF EQUINE TUBERCULOSIS.

Mogwitz records (*Zeitschr. f. Veterinärk*) the following case of a four-year-old mare. The animal first showed the symptoms of a chronic intestinal catarrh, which gradually grew worse. The general condition fell off greatly, and colicky symptoms and attacks of diarrhoea set in. The conjunctival membranes were dirty-white. The pulse was sometimes almost imperceptible, the cardiac pulsations were violent, and were greatly accelerated by the least movement. The animal showed pain upon pressure of the abdominal walls. The rectal temperature fluctuated between 100.4° F. and 104° F. The animal spent very much time lying down, and finally died.

The post-mortem examination resulted as follows. When the animal was skinned, the cutaneous vessels appeared completely bloodless. The carcass was almost devoid of fat, only a trace remaining. The peritoneal cavity contained from four to five litres (roughly from seven to nine pints) of serum. The peritoneum was studded with uneven wart-like nodules ranging from the size of a lentil to that of a pigeon's egg and lying close together. The small intestine was totally empty and collapsed. The wall of the ileum showed callosity-like thickenings up to two centimetres (= 4.5th inch) in diameter, and the mucous membrane, especially in the vicinity of the caecum, showed considerable ulceration. The colon was scarcely recognisable as such. In many places there were adhesions between the parallel columns of the viscus, and the lumen scarcely permitted the passage of a finger. The mucous membrane of this part of the intestine was studded with ulcers ranging from the size of a sixpence to that of a shilling, and resembling the ulcers seen in swine fever. The rectum showed similar lesions. The mesenteric lymphatic glands were enlarged to the size of a fist, and were grey-red and very juicy. The portal lymphatic glands were double the size of the fist. The liver contained many nodules up to the size of a chestnut, which were lobulated in their structure, and contained a crumbly yellow-white mass in their interiors. Similar nodules, up to the size of a pea, were found in the spleen, which was not sensibly enlarged. The interior of these latter



nodules was greasy in its consistence. The kidneys and the thoracic organs showed no morbid lesions.

The diagnosis of tuberculosis of the peritoneum, intestine, liver, and spleen was tested and established at the University of Breslau.

It is interesting to note that, when a foal, this mare had been looked after by an attendant who was suffering from tuberculosis, and who ejected much sputa. Mogwitz supposes that the equine tuberculosis arose from tuberculous material from this attendant, which infected the foal by the digestive tract.—(*Münchener Tier. Woch.*)

#### RENAL CALCULUS IN A HORSE.

Külper reports (*Zeitschr. f. Veterinärk.*) the case of a horse, eighteen years old, which for some weeks had undergone a striking falling off in condition, but had shown no special symptoms of illness. Having regard to the age and poor condition of the animal, the owner decided upon slaughter.

Post-mortem, it was found that the left kidney was bean-shaped in outline, and showed a bulging. It felt very hard; and pressure upon it caused distinct crunching sounds from its interior. It was about six inches long, 5 1-5th inches broad, and 2 4-5th inches high. Its weight slightly exceeded 1½ lbs. Its colour was pale red. The knife could only penetrate about 1-5th inch within it, and then encountered a hard resistance.

When the kidney was opened, it was found that its functional parenchyma had completely disappeared. The kidney itself was reduced to a connective tissue capsule about 1-5th inch thick. This enclosed a calculus, brown in colour, of an irregular pear-like shape, fairly smooth upon its surface, and rather over seven ounces in weight. The surface of the stone was enveloped by a soft chalky mass, in which smaller stones (together weighing 3v.) were found imbedded. The soft chalky mass weighed about seven ounces.

When the large calculus was sawn through, its cut surface showed a stratified lamellar structure. The single lamellæ were very hard, and crumbly, gravel-like masses of chalk were interspersed between them. The right kidney was markedly hypertrophied.—(*Münchener Tier. Woch.*)

#### BADLY-COOKED RICE AS A CAUSE OF PRURITIS AND INTESTINAL CATARRH IN DOGS.

Rexilius records (*Zeitschr. f. Veterinärk.*) an outbreak of this nature observed by him. A pack of hounds belonging to a regiment showed violent and constant pruritis, the dogs rubbing and scratching themselves incessantly. The ischial regions and the inner surfaces of the thighs became bare, and in many places bleeding. The animals also showed more or less violent diarrhoea and gradually became emaciated; some individuals died.

When the cause of the condition was sought for, neither vegetable nor animal parasites could be found in the skin. Rexilius then turned his attention to the diet of the dogs. He found that they had been fed mainly upon rice cooked in water, and had only now and then received some milk, dog

biscuits, and kitchen refuse. At the time of the examination they were receiving rice exclusively; and this had been only imperfectly cooked—in fact, only “half done.” The dogs took this food unwillingly; and the greater part of it had to be removed next morning, after it had already become sour.

Suspicion then arose that the pruritis and diarrhoea had been caused by eating the imperfectly cooked sour rice. This suspicion was confirmed. When the feeding was altered, and the rice was well cooked, and given along with milk and dog biscuits, the condition of the animals improved visibly, without medicinal treatment of the skin and intestines being applied. The pruritis soon ceased, the wounds which had been caused by scratching and rubbing healed, the diarrhetic faeces became normal, and the general condition of the animals improved from day to day.

It was thus proved that the illness had been caused solely by the defective nutrition and careless preparation of the food.—(*Münchener Tier. Woch.*)

#### THE ACTION OF YOHIMBIN.

Becker, of Kiel, records (*Illustrierten landwirtschaftl. Zeitung*) the following observation. A Danish stallion, the produce of a half-brother and sister, was a very bad stockgetter, impregnating only an exceedingly small percentage of the mares he covered. Petersen, a veterinary surgeon, examined the animal's semen, and found that it was remarkably thin and watery. Microscopical examination failed to reveal spermatozoa. Afterwards two other veterinary surgeons examined the semen, and found it to possess the same physical characters that Petersen had observed; while repeated microscopical examinations by them also failed to discover spermatozoa. The veterinary surgeons declared the stallion sterile.

The attempt was now made to influence the seminal secretion by means of yohimbin. A solution of 2 grammes of yohimbin in 750 grammes of water was prepared, and at first the horse received a tablespoonful of this three times daily. After the first quantity of the solution had been used, Petersen found that the horse was more ardent in covering and discharged a great quantity of semen. The semen was now again microscopically examined, and was found to be thick in consistence; it also contained numerous spermatozoa, and thus showed the properties of normal testicular fluid. Treatment by yohimbin was continued. After and during the administration of yohimbin the horse covered twenty mares, and sixteen of these (representing 80 per cent.) were impregnated.

Becker concludes that in this case the yohimbin exercised a direct influence upon the power of procreation.—(*Münchener Tier. Woch.*)

#### THE ACTION OF SENNATIN.

Credé, a physician, and Dietrich, a chemist, have produced a fluid extract of senna leaves, which contains all the active substances of the leaves, while excluding the non-essential and irritating ones. The preparation is called *sennatin*, and



is a clear, stable, sterile fluid, thin enough to be suitable for subcutaneous and intra muscular administration.

In Credé's hands the drug has answered very well when used as a subcutaneous and intra muscular purgative in 300 cases of constipation of the most varied kinds, including intestinal paralysis and meteorism. Sennatin is absolutely non-poisonous. It stimulates the intestinal movements in all cases so powerfully that violent expulsions of intestinal gases result, and that in all cases, through stimulation of the large intestine, evacuation of faeces is effected, provided too great mechanical obstacles are not present.

Credé has tested sennatin in different classes of cases which had the common feature of depression or arrest of the action of the intestine. The cases included children from two years old, and old men. The normal dose of sennatin for adults is 2 grammes. For subcutaneous injection a portion of skin with very loose subcutaneous connective tissue is chosen. Intra muscular injection is carried out upon the external parts of the muscles of the buttocks. The cost of an injection is only three-pence.

Experiments with this drug upon the smaller veterinary patients, especially dogs, are desirable. The drug might be especially indicated in cases in which, on account of peritonitis or from other causes—such as laparotomy—the administration of purgatives by the mouth is impracticable.—(*Münchener Tier. Woch.*)

W. R. C.

#### CONTAGIOUS ABORTION.

Sir John M'Fadyean, on Friday night, at Knutsford, addressed a large body of farmers and members of the profession on the interesting subject of "Contagious Abortion." The address was given under the auspices of the Mid-Cheshire Farmers' Association, with Mr. Geo. Norris Midwood, the president, in the chair, supported by Sir Gilbert Greenall, Bart., the hon. director of the "Royal" and a personal friend of Sir John.

The profession was represented by Messrs. J. H. Wright, M.R.C.V.S.; G. H. Stent, M.R.C.V.S.; G. H. Locke, M.R.C.V.S.; A. Taylor, F.R.C.V.S.; A. Lawson, M.R.C.V.S.; A. Darwell, M.R.C.V.S.; A. Marshall, M.R.C.V.S.; J. B. Wolstenholme, F.R.C.V.S.; T. Eastwood, F.R.C.V.S.; J. W. Brittlebank, M.R.C.V.S., D.V.S.

Sir JOHN, who was well received, said he had agreed to speak on the subject of abortion, and his object must be to tell them in as plain language as he could command what was the present state of the knowledge and opinion with regard to this important disease. It was not always easy to distinguish between knowledge and opinion, but as far as possible he would try to show them what appeared to be well-established fact and what appeared to be only opinion.

There was no occasion for him to apologise for having selected as his subject abortion, because the losses which were occasioned to farmers by abortion were certainly very serious. If the experience of people in that part of the country agreed with the general experience, there must be some in the audience who had suffered considerable loss from the disease. Abortion in its widest sense was a very wide subject, far too wide for any one to propose to deal with in a single address and except for

an incidental reference to abortion in cows, he desired to deal with a particular abortion in cows.

If a disease was to be intelligently and scientifically dealt with, the first point to determine with regard to it was the cause of it. In the past there had been a good deal of discussion and difference of opinion as to what was the cause of abortion in cows. Cows, like other animals, abort from various causes, but a great many of the causes that were occasionally in operation could be ruled out as not affording an explanation of abortion which was serious and had caused ruinous loss in a herd.

One knew that in any pregnant animal there were a number of things that might cause premature expulsion of the young. A pregnant cow or other animal if reduced to a condition of extreme poverty was an instance where parturition might occur prematurely. Still there was a wide experience to show that an animal might be in a condition of extreme poverty and yet carry the young to the full term. One also knew that the serious illness of a pregnant animal, from any cause whatever, might lead to abortion. Mechanical injury was recognised as a cause of abortion, and it was also very generally believed that severe fright was a cause—fright apart from mechanical injury. His own opinion was that although in the human subject, where the nervous system was more highly developed, fright was occasionally the cause of abortion, it was very rarely the cause of abortion in any of the lower animals. Then poisons of different kinds had also to be recognised as occasionally being the cause. Any poisons which made the pregnant animal seriously ill and threatened its own life might kill the fetus which the animal was carrying, and therefore cause abortion, and particular mention must be made of ergot, because for a very long time many people supposed they could find in ergot grasses an explanation of the widespread serious abortion. Improper diet had also been accused as a cause of abortion. Inbreeding of animals and even domestication had also been regarded as a possible cause.

While one might admit that all the things he had mentioned were capable of causing abortion, it might be said of the whole of them that they were seldom or never the cause of more than occasional cases of abortion, and that really they had no interest when one was trying to discover what was the cause of the multiple cases of abortion that occurred in herds, not only in England but wherever cattle are bred in large numbers.

Of course, when a man had an outbreak of abortion and he had read nothing about it before, and had not discussed it, it was quite possible for him to fix upon some particular circumstance or condition in connection with his own herd that was unusual and come to the conclusion that possibly that was the cause of the abortion. But mistakes of that sort were avoided when one collected all the available information there was about abortion as it occurred in a large number of herds, and it was when one did that that one very soon arrived at the conclusion that none of the things he had mentioned, nor the whole of them taken in combination, could be regarded as explaining the occurrence of the serious widespread outbreaks of abortion.

There was one other alleged cause of abortion, namely the suggestion that cows sometimes abort in what was vaguely known as sympathy. The suggestion was that when a pregnant cow witnessed or was conscious of the fact that another cow was calving, the pregnant cow was incited to cast her young prematurely; but the evidence did not support this theory. The true cause of the widespread plague-like abortion was contagion. Although it had only recently become generally accepted that the disease was contagious, it was by no means a new belief or opinion as regards abortion. More than a hundred of years ago there were far-seeing intelligent writers and stock owners who suggested that the facts



could only be explained on the view that abortion was the result of a contagious disease.

In certain contagious diseases the observed facts were convincing to everybody that contagion was actually in operation. For instance, it was by bacterial investigation or experiment that one came to admit that small-pox in man was a contagious disease. The observed facts were perfectly conclusive, but what might be called the clinical evidence, evidence derived from mere observation, was not sufficient to prove there was such a thing as contagious abortion. As a matter of fact, the question would have still been in doubt had it not been for the evidence produced by experiments.

As long ago as 1875 the Highland and Agricultural Society of Scotland took the matter up. They were pressed to do so because of the very serious losses which the disease was occasioning in Scotland, and Sir John was a member of the committee appointed to investigate. A number of experiments were carried out on a small scale, and proceeding on the assumption that the disease might be contagious, they tried to transmit it experimentally. They got cows that had aborted and they tried to infect the healthy pregnant cows by using materials from the former. They also tried similar experiments with sheep, and in a considerable proportion the results went to show that they could transmit the disease experimentally.

The next great advance in knowledge was made some years later by Professor Bang, the great veterinary authority in Denmark. He tackled the subject in a very acute manner, and he was the first to show that when a cow was killed before the act of abortion, there was tangible disease in the animal's womb and in the membranes surrounding the calf. Comparatively gross alterations were present in that position. He also was the first to discover that in the diseased lining membrane of the womb and in the membranes of the calf the abnormal material there present contained bacteria, usually in immense numbers. That was a very important discovery, but it was very far from affording proof of the contagion of the disease. He went further, and found that the bacteria present in the diseased womb could be cultivated out of the body in the laboratory, in artificial substances. He could get, so to speak, crops of bacteria to experiment with, and he proceeded to test the bacteria which he had cultivated artificially on pregnant cows and other animals; introducing bacteria into the animal system generally by injection into the blood stream, and generally by injection into the genital passages, and sometimes into the mouth. In a large proportion of experiments of that nature he found that the animals into which he had introduced bacteria actually aborted, and that the same diseased conditions were present inside the womb, and the same bacteria were present there. In short, he showed he had come into possession of something which he could multiply in his laboratory and by which he could cause practically as many cases of abortion as he liked.

And from the time these facts became known to veterinary surgeons there really was not left in their minds any doubt that the previous mystery as to the cause of widespread abortion in cows had been solved. Since that time the knowledge provided by Professor Bang had been considerably extended. Although a number of important points still remained to be elucidated it appeared to be established that abortion was a contagious disease by bacteria which had such special characters that they could easily be identified.

But one wanted to know a good deal more about a contagious disease before one was able to tackle it in an intelligent manner. In the first place one must regard the cow infected with the disease as a sort of breeding station for the germs which caused the disease. It was inside the womb that the bacteria increased enormously,

but one wished to know how the bacteria lived outside the body of the cow which had aborted, because, obviously, as long as they were imprisoned in the cow infected there was no danger to the other animals in contact with them. At the present time one could not say with any pretence to certainty that when a cow was infected some bacteria might not at any time during the course of pregnancy leave the animal, but there were very good grounds for believing that the escape of bacteria from infected cows, if it occurred at all, was very slight, or negligible, until the animal was actually aborting, or just before.

It was capable of demonstration that when an infected cow did abort, a perfectly colossal number of the germs of abortion were passed into the outer world. Sometimes they came away a little before the fetus, immense numbers of them escaped with the calf itself, and then they continued to go away for some days, possibly for some weeks or months afterwards; but the great source of contamination was just during the act of abortion, or during the next day or two.

Then the next question which one had to consider was—given this escape of these dangerous bacteria from an infected animal, how did they enter the bodies of healthy animals in order to propagate the disease? And it was about this preliminary point that there had been a very important change of opinion during the last two or three years, largely, as the result of investigations carried out by a Departmental Committee appointed by the President of the Board of Agriculture and Fisheries. Professor Bang was of opinion that cows were usually infected by the bacteria finding admission to the genital passages, and he supposed that probably this usually was when the cow was lying down in a shippon in which a case of abortion had occurred. That opinion was very generally accepted, and on it there was based an attempt to check the spread of abortion by frequently disinfecting the hind quarters of cows and the floor of the shippon generally. That of course was not the only precaution, because it was perfectly obvious that the first thing to do by way of prevention was to see that when a case of abortion did occur, the risk was minimised as far as possible by having the cow taken away, the fetus destroyed, followed by cleansing with copious applications of disinfectants. But in spite of that, cows frequently got contaminated in the way he had mentioned.

Professor Bang also succeeded in infecting cows by the mouth, causing them to swallow the germs, but he (Sir John) believed he was right in saying that Professor Bang did not suppose that that was the common method of infection. As a result of experiments carried out by the Departmental Committee the members came to the conclusion, and Sir John confidently shared the opinion, that the common method by which cows got the infection of abortion was by swallowing bacteria. It was rather an uncomfortable conclusion to come to, because it was really more difficult to counteract this method of infection than infection by way of the genital passages; but he thought that one must now really assume that in the great majority of cases in which the cow had become infected with this disease she had actually swallowed the bacteria. However well managed a shippon might be it was practically impossible to prevent any dirt or discharge from getting on the food of the animals.

Sir John did not wish to be understood as saying that cows were not infected by the genital passages in lying down, and he did not wish to belittle the importance of frequent disinfection of the channel behind the cow, but he was perfectly satisfied in his own mind that only a very small proportion of cows became infected in that way. Sponging the hind quarters with a disinfectant or even the injection of a disinfectant into the genital organs with a view to preventing the spread of



the disease was very nearly useless, and was probably just about as effective as if one tried to prevent the spread of glanders by sponging the horse's nose with carbolic acid.

There was still another way in which the disease was sometimes spread, though there was still some room for difference of opinion, namely through the medium of the bull. The opinion was very widely held that the bull was an important factor in the spread of contagious abortion, and given the facts he had already mentioned, one could see that there was a clear possibility that a bull might spread the disease without himself being infected with the disease. If a cow which had aborted and which came into service and still had got some of the germs of bacteria in her genital passage, and if the bull was frequently serving cows, it was quite clear that on the penis he might mechanically transfer the germs to the healthy cow which he next served. And this must continue to be regarded as one of the ways in which abortion was spread. There were some whose opinion was entitled to a good deal of weight who thought that was the common way in which the disease was spread. With that opinion Sir John was unable to agree. In his opinion the common method was by the mouth.

Passing to deal with another point—one upon which evidence had only been recently obtained—there were outbreaks of abortion in which the possibility of contagion having been introduced was not at all clear; in fact the circumstances were sometimes such as to exclude the possibility of contagion. He had known cases in which a lot of heifers served for the first time by a bull used for the first time had had occurring amongst them an outbreak of abortion. The heifers from the time of service to the time when the abortion broke out had not been in contact with cows.

That at first sight seemed to rule out contagion unless one admitted the possibility that in the past there might have been infected cows on the pasture and these had left the bacilli. That possibility one could not deny, but it was far from probable. But the occurrence of such cases suggested the question whether, after all, since this was a bacterial disease whether it was not necessary that an animal should be pregnant before it could be infected, and also suggested whether it was possible that male animals as well as female animals could become infected. Well, that question had been settled by experiments quite recently. He had himself found, using the cultivated germ of the disease, that one could infect calves of either sex with contagious abortion. It is true that just as in the case of pregnant cows, the infected young stock did not become visibly ill, but there were other methods by which they could prove that as a result of the injection of the infection of bacilli they had actually become infected.

The experiments which he had carried out during the last twelve months had also satisfied him, not only that a bull could be the mechanical carrier of the germs of contagious abortion from cow to cow, but that a bull could be actually infected with contagious abortion by the introduction of the germs of the disease inside his sheath. Nothing beyond the bare fact that this was possible had been established, but, as they saw, it opened up rather serious possibilities.

He did not propose to say much about the symptoms of this particular disease. One of the striking features was that in spite of the serious disease as revealed at the post-mortem examination of the womb, the infected cow showed no symptoms of illness whatever. It did not appreciably rise in temperature, maintained its appetite, did not lose condition, and it was also a remarkable fact that the abortion which was induced by the disease of the womb was usually affected with far greater disease than was abortion which followed an injury to the cow, or which was induced by some other

disease. In a sense it was unfortunate that this particular disease had no other symptom than abortion, because that made it exceedingly difficult to recognise an affected animal.

Now he came to the very important question as to how this very formidable disease might best be tackled with a view to prevention. There was no doubt whatever that a germ was the actual cause of abortion, and the cow might be regarded as a sort of breeding station for the bacteria, but the important point about which one desired information was, Is there any other place in which the germ of abortion could multiply? Even the man in the street knew that germs were of common occurrence in the outer world—in soil and water—and while most of these were harmless there were some capable of causing serious disease, and which maintained their power of multiplication in soil, water or dirt. One wanted to know whether that was possible in the case of the abortion bacteria, because if that was so the disease might arise apart from contagion. It would not be right to say that it had been absolutely proved that the bacilli of abortion never multiplied anywhere except in the body of a diseased animal, but it was justifiable to say that there was an exceedingly strong probability that the germ never did multiply except in the body of a diseased animal, and therefore if they could shield the healthy stocks from contact with the affected animals, or cut off the possibility of the germ from a previously diseased animal being introduced into the healthy stock, then the healthy stock would remain permanently healthy as regards this disease.

After having taken the evidence of representatives of agricultural and breeding societies throughout the country, the Departmental Committee made certain recommendations to the effect that abortion in cows should be made a notifiable disease, and that when a case of contagious abortion was ascertained, certain restrictions should be put upon the movement of pregnant animals from that particular herd. The majority of the witnesses who gave evidence were in favour of such action, but he would not venture an opinion as to whether agriculturists generally would welcome legislation or the passing of an order of that sort. There could be no doubt that such an order would be in the interests of those who at the present time had herds free from the disease, but of course it would not be in the interests of those who had diseased stocks.

In the past it had been almost impossible for a farmer who was not breeding his own animals to insure himself against the introduction of the disease, because in practice it was frequently impossible for the purchaser to get a trustworthy history of the animal he was buying. He had on many occasions to buy an animal on trust, and the danger of the introduction of the disease had been greatly increased owing to the fact that although an animal might be seriously affected at the time of purchase it was impossible to recognise the affection by the most expert examination.

One of the important things he had got to tell that meeting was that there was now known a method by which one could diagnose this disease with almost infallible certainty. In the immense majority of cases it was possible by the test that he had in his mind to detect whether an animal was infected or not. In other words, given any case of this disease or any case of abortion, it was possible to determine with practical certainty whether the abortion was due to one of those incidental causes to which he had referred in his opening remarks, or to this particular disease. And that, they would admit, was a very valuable discovery; it opened up a hope that one might be far more conclusive in the future in dealing with the disease than anyone had a right to expect comparatively recently.

This test is carried out by taking out a small quantity of blood from the suspected animal, allowing it to clot,

then squeezing out the clear liquid, called serum. This mixed along with some of the bacteria which cause the disease, would furnish definite results. If the serum came from a diseased animal then it acted on the bacteria in a way which became perfectly obvious in the test tube to the naked eye. If the abortion was of any other sort, or the animal was not infected, then no such effect was produced on the bacteria. He was not saying that that was the only method of diagnosing abortion, because when one had the material which had come away with the calf, the disease could be diagnosed by microscopical examination.

The theoretical method by which every farmer could protect himself against the disease would be—when he bought an animal to recruit his stock, whether the animal was a heifer or a bull, for a period of two or three weeks, isolate it and have the blood tested in the way described; if the test exonerated the animal then admit it to the stock.

But there was also the question as to how the disease might be got rid of from a herd in which it already existed. In such a case one should take out of the shippin any animal that threatened to abort and isolate it, and if it had actually aborted it must be removed and cleansed and the calf destroyed, and thorough disinfection practised. There was an immense amount of experience to show that a man might do that and yet fail to arrest the disease, because unless one was standing day and night watching the cows it was not possible always to know that an animal was going to abort until the animal actually aborted and then the mischief was serious.

The test he had referred to was capable of yielding very good results in attempting to suppress an outbreak that had actually begun. Theoretically, the proper method of dealing with an outbreak of abortion would be to remove the animals that had already aborted and isolate them and practise disinfection, and then to apply the test to all the remaining animals, at any rate to all the pregnant animals. This had already been done in a considerable number of herds and sometimes it had rather surprising results. By this method one could find out in the course of a day or two which of the remaining pregnant animals were already affected, and of course that was the absolutely necessary step to the elimination of the disease from a herd.

One result of the application of the test to different herds had been to show what was strongly suspected before—that not every pregnant animal that became infected with the disease actually aborted. That, again, was rather an unfortunate circumstance, because it meant that a very considerable danger might be overlooked. The cow had gone to nine months, and the owner himself thinking there was no danger attaching to the animal, it might honestly be sold—and then carry the disease into a new herd.

The question of whether it was possible to treat the animal medicinally—whether there was any known medicine that could be relied upon to cure, was often asked by the layman. His own firm conviction was that there was no such remedy known. He was well acquainted with the things that had been vaunted as specifics for abortion, but in so far as the thing was not a fraud it rested upon a misunderstanding, the misunderstanding being of this nature.—Although the disease was a contagious one, it was not one which ordinarily went on appearing over a long period of years in the same herd. The explanation was that when a cow had suffered from the disease and had aborted she became immune. She got entirely rid of the germs of the disease, and could be exposed to contact with infected animals afterwards without contracting the disease.

Another point was that a good many animals contracted the disease and did not abort at all, and these ani-

mals also had got immunity. When the disease was allowed to run its natural course in a herd into which a considerable number of new animals was not brought every year, after a course of years all the animals in that herd were immune. He mentioned this to show how fallacious it was to say because they had treated a case with carbolic acid, and the disease gradually died out, that the credit was due to carbolic acid.

His opinion that animals that had recovered from the disease became immune, raised the question of the vaccination of animals. That, of course, was in the air. The Principal Officer to the Board of Agriculture had, for a year or two, been trying on a pretty large scale in some parts of the country, whether one could intervene successfully in the case of an outbreak by vaccination of the animals. He merely mentioned the fact because there had not been published any statistics as to what was the real value of the point. (Applause).

A number of questions were asked and satisfactorily answered by Sir John. In reply to Mr. J. P. Bancroft, he emphasised the fact that when a cow had aborted it was afterwards immune, but whether immune or not it had nothing to do with the question whether she would spread the disease. There were exceptional cases where a cow aborted twice and thrice.

Mr. C. BURGESS asked if the test mentioned by Sir John was an expensive one for farmers. He had never heard of it before.

Sir JOHN replied that the Mid-Cheshire Farmers' Association were getting about the first information on on the subject—(Hear, hear)—but he confidently hoped a good deal would be heard in the near future.

In answer to Mr. Walkden, Sir John said if an animal was all right and had no discharge, it might be put to service three months after abortion. But he did not know definitely.

Sir JOHN agreed with Dr. Young, the principal of the Cheshire Agricultural College, that a possible source of infection was the use of the same implements for bedding and manure and food for the cow.

Mr. BRITTLEBANK, M.R.C.V.S. Manchester, said one's experience confirmed the view that Sir John had spoken from facts and not from laboratory theories. There was the extraordinary fact which one had seen, and which Sir John had explained, that the abortion bacilli was in all their farm animals. One had seen abortion in the mare, or in a lot of mares on a farm where there had been no abortion amongst cows. On the other hand, at a period of the season like that, one saw on a number of farms where there was contagious abortion amongst cows, yet no abortion amongst sheep. Whether the period of frequency had something to do with it he did not know, but it seemed to him that some of the farms must be grossly infected, and it was very extraordinary that a large percentage of animals had aborted from contagious disease, and yet they had an absolutely clean bill in regard to all their other stock. It had occurred to him that if the Mid-Cheshire Farmers' Association could take the matter up, a great deal of material could be placed in the hands of Sir John, and a very great number of tests could be carried out in Cheshire with considerable advantage.

Sir JOHN said it was a well-established fact that mares and sheep were susceptible to contagious abortion, and could be experimentally infected with it, but so far as he was aware, in no single instance in Europe or anywhere else had a mare or a sheep been found to be naturally affected with this disease. When the disease was spreading amongst cows, there ought to be some opportunity for it to spread to other animals on the farm, but the very fact that it did not, seemed to him one of the proofs that the disease was rarely contracted at grass. If the danger was as great in the fields as in the shippin, then the mares and the ewes would contract the disease.



As to the Association taking the matter up, so as to carry out some of the suggestions he had made, any such steps would have his full approval. It was his intention to try to induce the Royal Agricultural Society to take the matter up.

Mr. FODEN DEAN said his experience was that cows aborted when they were going dry.

Sir JOHN agreed. That was perhaps the sixth or seventh month, but in reality a cow could abort at any period of pregnancy.

On the motion of Mr. Lawson, seconded by Mr. Darwell, and supported by Mr. Marshall, Sir John was cordially thanked for the address.

The CHAIRMAN said Sir John had told them that the "Royal" was going to take the matter up. It was an open secret, and Sir Gilbert told him that he would do all he possibly could to see it was taken up in the proper way. (Hear, hear).

The vote of thanks to Sir John was carried with musical honours, and in reply, he confessed that he had never had a vote of thanks awarded to him in that way before.

#### CENTRAL VETERINARY ASSOCIATION.

##### ECZEMA IN THE DOG.\*

By F. W. CHAMBERLAIN, M.R.C.V.S., Wimbledon.

Gentlemen.—A little while ago I, as many others have done, acceded in a weak moment to the importunities of our energetic Secretary and promised to compile an essay, read and defend it before the members of our Society. After a little thought I selected the subject "Eczema in the Dog," because of its everyday occurrence in one's practice. Friedberger and Fröhner estimate that 8 per cent. of all dogs suffer therefrom. From the point of view of a general practitioner, I should say that that is quite a modest computation. The disease is really astonishingly common in the dog, and would in no small measure appear to be a true evil of domestication. Now, from the very start, in dealing with this somewhat complex subject, I would disclaim any idea of being didactic in this contribution. I submit this thesis not "as one having authority" but rather "as one of the scribes."

In their compilation, "Veterinary Pathology," Friedberger and Fröhner opine that breeds especially prone to the disease are Pugs, Fox-terriers, Danes, and Mastiffs. I do not know whether your experience in this matter will coincide with me, but I should say that if there is one breed more susceptible to eczema than another it is the Scottish Terrier—whether Aberdeen or Highland. Most frequently, in this breed the disease runs a chronic course attended by occasional exacerbations.

Perhaps a definition of eczema should come next. "A catarrhal inflammation of the skin characterised in some stage of its evolution by serous exudation." By "catarrhal" all that is implied is that an essential feature in the process is an exudation of serum either on the surface of the inflamed skin or into its deeper parts where the horny layer prevents the fluid from escaping. Clinically, eczema manifests itself as an eruptive dermatitis. There appears, however, to be something more in eczema than a mere inflammation of the skin due to a local and transient cause. There would appear to be some unknown quantity beyond this—a pathological *X*, which may be either some invisible source of irritation or some constitutional peculiarity, susceptibility, or diathesis. To quote the words of Cadiot: "At the beginning of any summary of the conditions favourable

to the outbreak of eczema must be mentioned that important idea that eczematous eruptions are often subordinate to a constitutional condition or diathesis; in the case of young dogs to a lymphatic temperament, in adults and the aged to a gouty diathesis, to obesity, and sometimes diabetes." "This general condition largely determines the occurrence of the disease and demands special treatment." "In certain subjects it produces disturbance in the functions of the stomach, intestine and liver, mal-assimilation accompanied by auto-intoxication." "Conditions which favour the development of eczema render it liable to appear under the influence of trifling causes and may even constitute the primary factor" (Cadiot). If we adopt this hypothesis then we arrive at this conclusion. That there are two main factors in the production of eczema.

(1) Predisposition or special irritability of the skin.

(2) An exciting influence which brings this irritability into play.

In a very few cases, perhaps, there may be an actual pre-existing morbid condition of the skin which predisposes. Eczema in man is often associated, I believe, with a very dry skin. The condition is known technically as *Xeroderma*—"a dry and parched state of the skin occasioned by abnormal diminution of the secretion of the sebiparous organs." "In its severest forms it constitutes Ichthyosis or fish-skin disease" (*Hoblyn's Medical Dictionary*). One often sees a canine patient with a dry and particularly scurfy skin. I often wonder whether the condition is chronic squamous eczema or xeroderma. It seems to me that at the arrival of an attack of acute eczema in such a patient some might declare it to be an exacerbation following on a chronic scaly eczema, while others would claim it as an acute attack consequent on a pre-disposing xeroderma or dry skin.

*Per contra*, in man, again, there is *Sweat-eczema* in skins whose sudoriparous glands are over-active. Excessive secretion of sweat without any alteration in the character of that fluid may prepare the way for eczema by so modifying the condition of the skin as to make it prone to become the seat of eczematous processes. The most common situations for the development of this form of eczema in man are the parts where two opposed surfaces of skin rub against each other—between scrotum and thigh, in the axilla, *between the toes*. The sweat in such parts is apt to undergo decomposition, and this fluid together with shreds of macerated epithelium and dust forms a substance highly irritating to the skin. I have italicised the words "between the toes," because the region of the pad is of especial interest to us in the dog, that being the area where sweat-glands abound. Eczema of the pad is, you will agree, extremely common. I am strongly of opinion that the actual irritant exciting the dermatitis is in most cases such an irritant as "tar paving," now so ubiquitous, and that the predisposing cause is the sweating between the toes. This you will see brings in the subject of *Interdigital cysts*—so-called, I have always considered these to be directly associated with eczema. In most cases I think the term Interdigital Cyst to be a misnomer. In a large proportion of cases I think the real condition is Suppurating dermatitis of the paw complicated with sinus formation—uncommonly difficult to cure.

Now leaving out the question of predisposing skin—abnormalities entirely, and, if you please, possessing doubts as to the existence of what some might term this somewhat mythical diathesis, we must admit that there are other factors to come under the heading of agents predisposing to the dermatitis of eczema. I will include intestinal parasites (we well know the sympathy between the digestive organs and the skin), digestive disorders generally, plethora, and last but not least, unsuitable feeding. On the score of diet, many people seem totally oblivious of the fact that the dog is a carnivorous

\* Read at the meeting at Red Lion Square, London, W.C., on Thursday, May 1st.

animal—a flesh-eater by nature, and endowed with those formidable carnassial teeth adapted for the crushing of bones. It is their custom to feed a dog almost entirely on carbo-hydrates—biscuits. The animal is not living in its natural wild state, we know, and domestication may in great measure call for a modified diet. Every dog, however, is the better for a certain amount of flesh-feeding. I am aware that the average dog-biscuit contains meat of a kind, and that there are some reliable brands on the market. On the other hand probably the vast majority are not reliable. One has only to break in two enough bisnits of many of the brands and examine the broken surfaces to form some idea of their nutritive value. You may find particles of meat, but in what condition? Many of the biscuits are greenish on section, and I have a suspicion that tallow is an ingredient in some.

Now as to the exciting influence which, added to these predisposing causes, acts as the actual irritant cause of the dermatitis. In many cases dirt, fleas, repeated friction (of a collar, say), strong soaps, *e.g.*, soft soap with abundance of free alkali, are to blame. Seawater will often suffice. I am sure that anyone with a seaside dog practice will concur with me. The hot rays of the sun during a "heat wave" will often suffice. In the house-dog, to my mind, the commonest cause by far is the acquisition of the "fireside habit."

Now, undoubtedly eczema is usually set up as the result of some direct irritation acting on the skin, but the whole process cannot be dismissed in this summary sentence. With the removal of the cause the effect would follow. The effect of such irritants is to set up a simple dermatitis. There can be little doubt that there is an additional irritant which transforms a simple dermatitis into eczema—the "last straw"—the action of micro-organisms. The skin has an abundant microbe flora of its own; under normal conditions these organisms do no harm, but it is easy to understand how the lesions produced by previous disease (dermatitis) may make the integument more vulnerable to their attack. Eczematous patches exhibit a complex flora of micro-organisms and bacteria whose rôle in the pathogeny of outbreaks is still, perhaps, undetermined. The microbes which multiply on eczematous spots are not without influence on the courses and changes of the disease; they aggravate acute eczema, and partly contribute to the obstinacy of chronic forms. At the Fourth International Congress, held in Paris in 1900, Unna, a well-known specialist in dermatology, summed up the conclusions to which his researches had led him in the following propositions:—

"The uncertainty which exists concerning the pathogenic agent of eczema is due in great measure to the absence of precise knowledge as to the various forms of cocci-micro-organisms presenting the closest similarity in appearance possessing widely different pathogenic properties."

"In eczema numerous micro-organisms are present and among them are several which when re-inoculated reproduce the disease."

Other scientists have reported the results of bacteriological examinations made by them in cases of acute eczema. In early and uncomplicated lesions they found cocci producing whitish cultures, all of them examples of the *Staphylococcus pyogenes albus*. They expressed the opinion that in all probability there are many factors at work in the production of eczema, and although they do not think this organism is the cause of the disease, they cannot help considering that this white coccus and other cocci, *e.g.*, the *Staphylococcus pyogenes aureus* and the *Streptococcus pyogenes* which are so often present in the later stages of the disease, must have very important influences on the development of the malady. The local infectivity and chronicity of eczema, the ease with which purulent manifestations occur should in all prob-

ability be ascribed to the presence of such bacteria. This was in 1900. I believe the trend of opinion is the same to day, though, as a Scotch jury would say, the case is "not proven." It seems impossible to believe that parasites known to possess definite pathogenic properties can be present in such numbers, as they have been proved to be by competent observers, without having a considerable effect on the character and severity of the disease.

Further, there is the evidence of transmission by inoculation to be emphasised. Eczema spreads, it will be gathered, by auto-inoculation. While we are prone to dismiss it summarily as "non contagious" there would appear to be a possibility of its being wrongly classified, though, of course, it is only transmissible by inoculation. At the same time it has occurred to me that a suckling bitch can infect her whelps. I shall be glad to hear your opinions on this point.

Eczema is essentially a polymorphous affection. Erasmus Wilson described a number of different forms of eczema:—erythematous, vesicular, papular, pustular, squamous, etc. All these, however, are but different stages of the same process, and there is no advantage here in considering them separately, although the terms are sometimes of use in practice to indicate the predominant type of lesion in a given case at a given time.

The terms acute or chronic indicate a greater or less intensity of the inflammatory process at a given time. The worst forms are ordinarily accompanied by some constitutional disturbance not amounting to fever, and the same thing occurs at each exacerbation. The general health, however, is seldom appreciably affected except when the itching is so intense as to interfere with sleep. This subjective symptom—itching—varies with the temperament of the patient. Lesions which in a placid lymphatic animal cause only slight annoyance would drive a neurotic animal frantic. Nor is the irritation always proportionate to the glaring character of the lesions. It is often very marked in erythematous eczema (*eczema rubrum*—the atrociously named "red mange" so common about the elbows, thighs, and chest). In such cases the exudation inseparable from eczema appears to be imprisoned under the horny layer of the epidermis, and presses on or irritates the terminal filaments of the sensory nerves of the skin, and the relief afforded by free scarification of the parts with the toe-nails seems to confirm this view.

I will not labour on the symptoms of eczema. In an acute attack there are of course the classical stages—erythema, papule, vesicle weeping, pustule, scaly stage. In a bad case possibly all or most of these stages can be observed on the animal at one time. After the scaly stage we pass on to resolution, or to the chronic scaly eczema already mentioned. Chronic eczema most commonly affects the back and the region of the olecranon and calcus. It is attended by thickening of the skin, cracking of its surface, bristling and breaking of the hair, extreme sensitiveness of the skin owing, no doubt, to disturbance of innervation, and the slightest accidental irritation brings on an attack. Acute attacks supervene under the slightest provocation. Of course, eczema in certain positions involves special symptoms. Eruptions on the eyelids cause marked swelling, depilation, and conjunctivitis with abundant discharge, which causes the eyelids to adhere, particularly in the mornings. Acute eczema of the ear produces offensive discharge. The inflammation of the scrotum is aggravated by intertrigo. Eczema of the ground surface of the foot causes lameness; so may that of the interdigital spaces. One of the most troublesome conditions met with in dog practices is chronic eczema of the auditory meatus, which involves ulceration and hypertrophy of the papilla, and vegetations which entirely obstruct the passage. These cases appear to be hopeless. Cleansing and dressing the ear is impracticable.





## DIFFERENTIAL DIAGNOSIS.

Distinguished from mange by the absence of the acarus or demodex. From skin distemper by the very small size of the eczema vesicle. That of skin distemper is very broad comparatively, and flattened. Prognosis: Recurrence the rule rather than the exception.

## TREATMENT.

Before discussing medicaments, we may recall some of the predisposing and actually exciting factors in the dermatitis. Thus, regular and suitable feeding, regular action of the bowels, attention to intestinal worms if present, the avoidance of irritant soaps, and of soap and water generally, as far as possible. If at the seaside, prohibit the animals entering the sea. Keep the dog away from the fireside.

A lowering diet is probably unnecessary except in very acute cases. I am rather partial to the use of a diet of raw meat. Avoid excess of carbo-hydrates and sugars, and prescribe regular hours of feeding and nothing in between.

Now as to medicaments. Probably it is the beginning of therapeutic wisdom to clear one's mind of the idea that arsenic or any other drug administered internally acts as a specific. If internal remedies are to be employed they should be given for a definite purpose and in accordance with definite indications. How much is really known of the actions of arsenic? If its attributed actions are correct, it would appear to be a veritable panacea in our catalogue of diseases. Doubtless arsenic is of use in the more chronic forms of eczema, possibly by reason of its antiperiodic action possibly by reason of its being excreted in part by the skin. But in acute cases—where the skin is acutely inflamed, arsenic is probably actually detrimental in that it raises blood pressure and increases exudation. Rather in acute cases the administration of saline febrifuges, or the vinum anti-moniace to relieve the arterial tension and relieve the local inflammation. Where nervous symptoms are pronounced, appropriate sedatives may be administered, *e.g.*, opium, which soothes excitement, allays irritation, and induces sleep. Phenacetin also useful.

Local remedies are the most important. What appears to me to be a rational line of treatment in eczema is this:—To remove all crusts and scales with oil or a weak solution of Sodæ bicarb., then to (a) Destroy the bacteria; (b) Protect the inflamed skin from invasion of such; (c) Relieve irritation.

We are anxious not to aggravate the inflammatory process, so an unirritating microbicide agent is the best at first. A solution of Boracic acid seems suitable. Then an emollient may be applied in the form of a "cream." The following prescription is one of those advocated by Dr. Malcolm Morris, Consulting Skin Specialist to St. Mary's:—Zinc oxid: Lanolini: Ol. olivæ: Aquæ calcis.

This cream is distinctly emollient and cooling. It will be seen that there is a certain proportion of water mixed with a fatty base: this facilitates evaporation. After the acute inflammation has subsided, probably there is no better dressing than a simple ointment containing sulphur. For instance Zinc Oxid: Sulph Sub: Creosot: Adipis lane: Adipis: Liq. Rosæ.

To the best of my belief there is no benefit accruing to the animal from the Liquor Rosæ! Ichthylol is credited with being a very useful dressing in acute eczema. Unna recommended a varnish: Ichthylol: Starch: Albumen: Water.

"Friedberger and Fröhner recommend for excessively weeping eczema a 6 per cent. solution of watery or spirituous solution of silver nitrate. They have long used it with great success. After first cleansing the part they apply the dressing with a brush, when a slight dry

eschar or slough is formed, beneath which healing rapidly occurs."

They have often used Arsenic with good effect in chronic eczema with good result; usually as Fowler's solution. Personally, I generally use Donovan's solution, as dogs take it readily in their food, whereas they object to the Tinct. of Lavender in Fowler's solution. Druggists, however, make Fowler's up for us now by request *sine* the Tincture. For chronic eczema, dressings containing tar give me most satisfaction. I have tried chrysarobin, and other advocated dressings, but prefer ordinary Sulphur Ointment containing Ol. Picis.

It now remains for me to thank you for your kind attention and I trust a good discussion will follow.

## Authorities quoted:—

Friedberger and Fröhner (Veterinary Pathology).

Diseases of the Skin (Malcolm Morris).

Law's Veterinary Medicine.

## VICTORIA VETERINARY BENEVOLENT FUND.

The quarterly meeting was held at 10 Red Lion Square, London, on Thursday, April 10th. Present:—Messrs. R. C. Trigger, H. A. MacCormack, S. Wharam, S. H. Slocock, S. Villar, J. Dunstan, G. A. Banham, and W. Shipley. In the absence of the President, Mr. R. C. Trigger presided.

The minutes of the previous meeting were accepted and passed. The quarterly report and statement of accounts by the Secretary and Treasurer were approved. Letters of apology for non-attendance were received, and letters of thanks from old recipients.

A report from Prof. O'Connor, Secretary of the Irish Committee, was received, and some suggestions therein were accepted. A case was referred to the Finance Committee.

The TREASURER submitted the balance sheet which was for nine months, from March to December, owing to the alteration of the ending of the financial year. It was proposed by Mr. MacCormack, and seconded by Mr. S. H. Slocock, the same duly signed by the auditors. This was adopted.

It was approved that all the grants to the old recipients be continued.

Proposed by Mr. Wharam, and seconded by Mr. Slocock, that a grant of 10/- per week be made to Mrs. T.

Proposed by Mr. Slocock, seconded by Mr. MacCormack, that a grant of 5/- per week be made to Mrs. T. until her son leaves school, when a fresh application should be made.

In the case of Miss W., Prof. Dunstan was asked to make further enquiries locally, and if satisfactory, a sum not exceeding £10 be granted, on the proposition of Mr. Villar, seconded by Mr. Slocock.

Other applications for help were received.

## QUARTERLY REPORT.

In presenting my quarterly report, I regret to say I am most disappointed in the slow progress we are making.

There are so many members of the profession who should help and do not do so. I feel sure it is through the fact that the work of the Fund does not come to their knowledge, as I am aware that all our old subscribers are pleased to help, and that the more they know of the work we are doing the more pleased they are to be helpers. May I suggest that we, as veterinary surgeons, are often called upon to support outside charities; we might easily ask our non-professional friends to support our charity. Several of my personal friends give me a subscription and express surprise that



FRACTURE IN UTERO.

*Note by Mr. Samuel H. Power, Ennis.*







more do not help. I have 26 new helpers, but what can that be compared to the need of increasing our too small grant of not more than ten shillings a week to the widows with families, and the three fresh applications from poor women, and two others from veterinary surgeons in distress.

In my town the widow of a fisherman gets 12/- per week, and 2/6 per week for each child from a fund supported entirely by fishermen; men earning small money as compared with our members. I very much hope our members will endeavour to put our fund in a similar position or even better.

I have letters to submit to you from our recipients. In one, a very sad case, the orphan son of a veterinary surgeon has to be sent to South Africa suffering from tuberculosis; this is only possible owing to our grant.

In another, the widow of a veterinary surgeon quite unable to work and suffering considerably after a serious operation for cancer of the breast. May we not try to help to lighten the sorrow of a lingering death?

Amongst our subscribers the majority appear to be Country practitioners. Why do not the members of the profession in the big towns help? London is a disgrace as far as our fund is concerned, from a charitable point of view. I am quite aware there is not the frequent association of members of the profession in these big cities, but at the same time the successful men see how many go down in the flood of competition and the disaster of disease.

I have received a doctor's certificate in the case of Mrs. R., and in accordance with instructions have made a weekly grant of 10/-.

With the consent of the Finance Committee a sum of £5 was sent to Lady M'Fadyean to support a fund she was raising to ensure the retention of the son of a veterinary surgeon at a charitable school for a further year. We are indebted to Lady M'Fadyean for the interest she has taken in the case, and should congratulate her on the successful issue.

I have for your further consideration the application from Mrs. C. T. An application from Mrs. T. is before you; two members of the profession to whom the case is well known have sent me cheques anonymously, in order that I might be able to send 10/- per week until you are able to consider the application.

There are three cases under the consideration of the local Committee in Ireland. I still feel we should increase our grant to 10/- per week to Mrs. M., subject, of course, to the report from the Irish Committee.

I feel again that we should in all cases where the Council is satisfied that help is needed, decide that a sum of not less than 10/- per week be granted. I cannot appreciate how any widow of a veterinary surgeon should be expected to live on less, and if the poor woman has children we should endeavour to give her more.

The individual help of the members of the Council I greatly desire. They should be aware that my time is not the time of a slacker, and I have to devote a deal of time I can sorely spare to bring the fund into what I consider the position it should occupy.

At the recent meeting of the National Defence and Benevolent certain references were made to our fund. I can assure you it is my endeavour to act in perfect accord with that Society. As a matter of fact I am on the Council of both. The members of the profession should be aware that there is no discord, and further, that were it not for our special fund the resources of the National would not be able to cope with the great demands on their income. Some suggestions as to amalgamation have been made, at the present time this is impossible. Perhaps the time may come, I should welcome it, but whilst one-third of the income only of the National Defence and Benevolent can go to benevolence this seems impossible, and again, we are at present

so much poorer than that society in accumulated funds that they surely would not take us into partnership. Anyhow I am particularly anxious that the members of the profession should know, that you as a Council, and that I as your working secretary are trying hard to make the object of the two societies as one, and one only, that is, "the alleviation of distress to old or young practitioners, and to the widows and children of our College pals who have been called away before being able to make proper provision."

Our income at present from subscribers approaches £250 per annum. Our expenditure exceeds £300. What can we do to improve our position?

You will note I feel sure with great pleasure Mr. P. J. Simpson is organising a theatrical entertainment for the benefit of the fund. You will be aware much time and trouble and expense must be incurred to produce this, it therefore behoves all who can to support Mr. Simpson's venture. May we get other similar efforts originated.

#### DONATIONS.

Wharam, Mrs.	Leeds	£5	0	0
Stephenson, C.,	Newcastle	5	5	0

#### NEW SUBSCRIBERS.

Allman, J. D.,	Ealing	10	6
Hewlett, C. J. & Son,	London	1	1
Auger, T. E.,	Wymondham	10	6
Fewings, A. B.,	Board of Agriculture	10	6
Rankin, K. P.,	"	10	6
Medlock, F. W.,	"	10	6
Yates, Jas.,	"	10	6
Arnold, P. W.,	Gt. Yarmouth	10	6
Willows, Francis & Co.,	London	10	6
Turner, F. S.,	London	1	0
Young, J. B.,	Braintree	5	5
Pugh, D.,	Sevenoaks	1	1
Whicher, A.,	Bexhill	10	6
Weston, W. P.,	York	10	6
Buckingham, J.,	Harleston	10	6
Reeman, Wm. M.,	Bury St. Edmunds	10	6
Soulsby, J.,	Cockermouth	1	1
Mackinder, J.,	Peterboro'	10	6
Eastern Counties V.M.S.,	"	5	5
Holland, J.,	Athy	10	6
Oliver, E. W.,	Simla, India	10	6
Quinlan, D.,	Calcutta	1	0
Trigger, W.,	Newcastle	10	6
Willett, F. W.,	Staines	1	0
Thornton, F. J.,	Dorchester	3	3
Woodridge, Prof.,	R.V.C.	10	6

#### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS.

A specially convened meeting was held on Wednesday, April 30, at the Holborn Restaurant, for the purpose of forming an Association, for the election of officers, and for the discussion of the proposed schedule of suggested charges under the Tuberculosis Order. There was a large gathering of veterinary inspectors from various parts of the country, and the chair was taken by Mr. Joseph Abson, of Sheffield.

The SECRETARY (Mr. Trevor Spencer) read the notice convening the meeting.

The CHAIRMAN said he had no doubt they had all carefully read the account given in *The Veterinary Record* of the previous meeting, and that being so, they would probably agree with him that it was unnecessary for the Secretary to read the minutes of that meeting.

It was accordingly proposed by Mr. Gooch, and seconded by Mr. Crowhurst, that the minutes of the previous meeting be taken as read. This was agreed



to, and the minutes were confirmed, and signed by the Chairman.

The SECRETARY then read a list of names of gentlemen from whom he had received letters of apology for non-attendance at the meeting. These included: Messrs. J. Forbes, Truro; J. B. Wright, Builth; F. Morton Wallis, Halstead; J. Dykes, Wellingborough; W. Graham, Minehead; W. Shipley, Yarmouth; J. W. Pritchard, Brighton; J. B. Young, Braintree; E. Dixon, Margate; and several others.

The Secretary also read the report of the Executive Committee, which recommended:—

(1) The formation of an Association to be styled "The National Association of Veterinary Inspectors."

(2) The membership be confined to Veterinary Inspectors of the Board of Agriculture and Fisheries under the Contagious Diseases (Animals) Acts, and Veterinary Inspectors holding appointments under the Public Health Authorities.

(3) That the Association be affiliated with the National Veterinary Medical Association, at an affiliation fee per member of one shilling.

(4) That the annual subscription should be five shillings per member, this amount to include cost of affiliation.

The Committee further recommend that the objects of the Association should be:—

To devise means by which all Orders dealing with the contagious diseases of animals may be carried out in a systematic and uniform manner by the veterinary officials concerned.

To place in the hands of members, by means of pamphlets and demonstrations, the most approved methods of diagnosis in connection with the diseases in which they are more particularly interested.

To support members in approaching Local Authorities, where such action may be considered expedient, with a view to securing for veterinary inspectors a more uniform scale of remuneration; and generally to safeguard the interests of members.

Mr. KING moved "That an Association of Veterinary Inspectors representing the whole of the country be formed on the lines laid down by the Executive Committee." He would not reiterate the arguments in favour of the formation of the proposed Association. It was very important that their interests should be safeguarded in the present important crisis, and he was quite sure that a great deal of very useful information could be collected, and a great deal of good done, by such an Association. As he had remarked at the previous meeting, the Association now about to be formed would be in no way whatever antagonistic to any other Association or Society at present in existence. (Hear, hear). They wished to clash with none, but to work amicably with all.

Mr. WARTNARY (Burton-on-Trent) seconded the resolution, which was then put to the meeting and carried unanimously.

#### ELECTION OF OFFICERS.

Mr. BRITTLEBANK said that the first business before the Association now happily formed was naturally the election of a President, and it was with very great pleasure that he rose to propose their Chairman, Mr. Joseph Abson, as the first President of the Association. (Hear, hear).

Mr. DUNSTAN briefly seconded the resolution, which was carried unanimously.

Mr. BRITTLEBANK remarked that he was sure not only those present, but veterinary inspectors all over the country, would approve of their choice. Mr. Abson's past record was a guarantee that the Association would at least have a working President during the year of its inauguration. (Applause).

The CHAIRMAN, in thanking the Association for the honour conferred upon him, said he did not quite know how it had come about that he had been proposed as the first occupant of that very onerous position, but whatever the reason might be, he could only assure them that it would be his endeavour to promote in every way the welfare of the Association, and to carry out his duties as President to the best of his ability. He took that opportunity of alluding to an impression which appeared to obtain, he was glad to say only in one quarter so far as he knew, that the Association was being formed for militant purposes. That was not the case. The question of the fees they were to receive for the services they were about to render under the Tuberculosis Order was quite a secondary consideration, and as a matter of fact the originating meeting was called not to discuss the question of fees at all, but in order to hear the explanation of the Tuberculosis Order which Sir Stewart Stockman had most kindly volunteered to give. Afterwards the question of fees had undoubtedly come up for consideration, and in his opinion, this was quite natural and proper, and indeed inevitable. (Hear, hear). The proposed schedule of charges would, at a later stage, be laid before the meeting, and he hoped those charges would be considered reasonable, equitable, and just. If not they could of course be amended in any way the meeting thought desirable, and he hoped that they would, at all events, receive full and careful consideration before being finally adopted.

*Vice-Presidents.*—The SECRETARY announced that the following gentlemen had been recommended by the Executive Committee as Vice-Presidents of the Association: Messrs. P. G. Bond, Wm. Shipley, W. Woods, James Crowhurst, T. C. Toope, and Frank Garnett.

Mr. CAUDWELL proposed, and Mr. Hughes seconded, that the foregoing nominations be confirmed.

Mr. PARR inquired whether the Vice-Presidents were to be appointed permanently or annually.

The CHAIRMAN replied that the appointments would be for the year only. Upon the resolution being put to the meeting, it was carried unanimously.

*Treasurer.*—On the motion of Mr. Gold, seconded by Mr. Brookes (Warwick), Mr. Brittlebank was appointed Treasurer for the ensuing year.

*Auditors.*—Mr. TOOPE proposed that Messrs. B. De-Vine and W. S. Carless should act as auditors of the Association; this was duly seconded by Mr. Green, and carried unanimously.

*Hon. Secretary.* Mr. MALCOLM, in proposing that Mr. Trevor Spencer be appointed Hon. Secretary for the ensuing year, said the work Mr. Spencer had already done had proved him to be the right man in the right place—(hear, hear)—and he was sure they could not possibly have a better Secretary.

Mr. GRASBY seconded the resolution, remarking that to Mr. Trevor Spencer would undoubtedly belong the credit, in a very large measure, of the success which they all hoped and believed would be the result of these meetings.

The CHAIRMAN, supporting the resolution, said he was quite sure he would find Mr. Spencer an invaluable ally in carrying out his duties as President. He then put the motion, and declared it to be unanimously carried, the announcement being received with applause.

The Hon. SECRETARY, in acknowledging his formal appointment, said he was afraid he could not possibly promise to undertake the duties for more than a year, but probably, after seeing the result of his first year of work, they would not wish to re-appoint him. (Laughter). But during the time he held office they might rely on him to do his very best. (Hear, hear). In his view, the duties they were called upon to undertake in connection with the Tuberculosis Order were the

most onerous and responsible they had ever been asked to perform. From inquiries he had made, he found that no less than nine separate reports, or certificates, would have to be filled in by the inspectors in respect of each notified animal, so that apart altogether from the actual work of inspection, the clerical work alone was going to be fairly heavy.

**Council.** The SECRETARY read a list of the names of gentlemen recommended by the Executive Committee to serve upon the Council of the Association, and remarked that in their selection due regard has been paid to proper geographical distribution. The list of names submitted was as follows: Messrs. John Malcolm, Birmingham; E. L. Dixon, Margate; Geo. Elphick, Newcastle-on-Tyne; Geo. King, Abingdon; H. J. Dawes, West Bromwich; J. A. Gold, Redditch; G. P. Male, Reading; H. Peele, Durham; G. H. Locke, Manchester; Hugh Begg, Hamilton, Lanark; E. Dunstan, Liskeard, Cornwall; George Wartnaby, Burton-on-Trent; R. D. Williams, Aberystwith; R. Hughes, Oswestry; G. H. Elder, Taunton; W. T. Brookes, Warwick; F. L. Gooch, Stamford; J. Clarkson, Garforth; W. H. Brooke, Handsworth; T. Duckworth, Ashbourne; R. C. Trigger, Newcastle-under-Lyme; D. G. Davies, Swansea; W. W. Grasby, Daventry; Alex. Munro, Altrincham; and R. Barron, Blandford.

**Place of Meeting.** Mr. Gooch thought it desirable that it should now be decided as to where the Council should meet, and said that in order that the matter might be discussed, he would move that for the ensuing year, at any rate, its meetings should be held in London.

Mr. GRASBY seconded the resolution.

Mr. BRITTLEBANK thought the place of meeting might very well be left to the Council itself, and that its hands should not be tied.

Mr. GOOCH: Do you move that as an amendment to my resolution?

Mr. BRITTLEBANK: Yes.

Mr. HUGHES seconded the amendment, which, after some further discussion, was duly carried.

The CHAIRMAN said that at the last Committee meeting it had been proposed by Mr. Dawes, seconded by Mr. Dixon, and unanimously resolved, that the Hon. Secretary be reimbursed the costs he had incurred up-to-date so soon as the necessary funds were in the possession of the Hon. Treasurer. He now begged to move that that resolution of the Committee be confirmed by the meeting.

Mr. MALCOLM seconded the resolution, and it was carried unanimously.

#### SCALE OF FEES.

The SECRETARY said that at a meeting of the Executive Committee, held at the Grand Hotel, Birmingham, on Monday, April 21st, it had been resolved to recommend the following scale of suggested fees for veterinary inspectors' work in connection with the Tuberculosis Order of 1913:—

For first inspection of suspected bovine animal on receipt of notification by the police	10 6
For inspection of each animal after the first up to a maximum of three guineas	1 0
Charge for mileage, one way	1 0
For microscopical examination of milk or other discharge from any one suspected cow, to include repeated examinations if such should be considered necessary whilst the particular animal is under suspicion	10 6
For biological examination of suspected milk or other discharge; the fee actually paid to third party, not exceeding	1 1 0
For applying the Tuberculin Test, up to and including four animals	2 2 0

Beyond four animals, extra per animal	5 0
Mileage charge during Tuberculin Test, one journey only at 1/- per mile one way.	
Post-mortem examinations, each	10 6
and mileage charge 1/- per mile one way.	
Out-of-pocket expenses for slaughterman extra.	

#### Travelling Expenses:

Cab fares; amount actually paid, vouchers to be produced.

Rail fares. 2nd Class where available, in other cases 1st Class fare.

For valuation of a condemned animal, no charge.

The CHAIRMAN thought the best course would be to take the various items in the schedule *seriatim*, and not attempt to discuss them *en bloc*.

Referring to the first group of charges (for inspection on notification), Mr. Pennell thought 1/- per head after the first animal was ridiculously low. He considered it should be 2/6 per head.

The SECRETARY observed that though the charge might appear small when looked at in an isolated way, he thought that when they viewed the whole transaction, from the first inspection down to the post-mortem examination, the remuneration was as high as could reasonably be expected.

Mr. WARTNABY thought it would be very unwise to try and fix their charges at too high a rate. He was satisfied that the suggested charges were equitable and fair.

The CHAIRMAN desired to endorse Mr. Wartnaby's remarks. The proposed charges had been very fully considered by the Executive Committee, and if looked at carefully and thoughtfully, he thought they would be found to be not at all unfair charges from the point of view of the Veterinary Inspectors.

After some further discussion, Mr. Gooch proposed that the first group of charges be adopted by the meeting. This was seconded by Mr. Martin, and carried.

Mr. CROWHURST asked whether, with regard to the second item of charge in the suggested scale, *viz.*, 10/6 for microscopical examination, he was right in understanding that, if called in to make an examination of an animal at a certain farm on a particular date, he could afterwards, on the same day, visit another farm, and repeat his charge.

The CHAIRMAN: Certainly.

Mr. CROWHURST said that was in his opinion an important point in favour of the proposed charge, and he had much pleasure in moving its adoption.

Mr. ROUTLEDGE (Louth) seconded the motion, which was carried unanimously.

Mr. VILLAR—the charge of £1 1s. for biological examination of suspected milk—thought it doubtful whether scientific men—biologists—would be prepared to accept so low a fee as one guinea for such work.

Mr. BANHAM considered that the item should be omitted. They had no right to fix a charge for the work of other people.

Mr. PENNELL agreed. In some cases he thought it would be found that the biologist's fee would be as high as three guineas.

The CHAIRMAN thought there was ample evidence that there would be no difficulty in getting this work done for a guinea, and it had been the desire of the Executive Committee to keep down the charges as much as possible. Three guineas, to his mind, was a very exorbitant charge.

Mr. FOSTER said that in most cases they would be able to guarantee a certain number of samples for examination, and he was of opinion, that being so, that there would be no difficulty in getting the work done for a guinea.

The CHAIRMAN said that after all he did not think it was worth while fighting very hard about the guinea.



## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Out-breaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended May 3	8		9				3	10	57	113		58	798
Corresponding week in	1912 12		12				3	4	44	95	6	87	992
	1911 12		23				5	7			1	53	623
	1910 34		35				11	14			1	29	452
Total for 18 weeks, 1913	242		260				63	208	1293	2678	112	748	10123
Corresponding period in	1912 406		456				60	136	1815	4067	156	1198	15017
	1911 360		421		1	18	76	221			293	808	8592
	1910 558		680				135	326			302	410	3464

† Counties affected, animals attacked: Durham 2, London 8.

Board of Agriculture and Fisheries, May 6, 1913.

IRELAND. Week ended May 3							Outbreaks							
							1	9	10	14				
Corresponding Week in {	1912 ...	...	...	...	...	...	3	3	3	102				
	1911 ...	1	1	...	...	...	...	3	2	8				
	1910 ...	...	...	...	...	...	3	9	...	122				
Total for 18 weeks, 1913							...	...	...	...	80	254	58	302
Corresponding period in {	1912 ...	1	1	...	...	...	34	243	90	614				
	1911 ...	4	4	...	...	1 2	37	227	47	907				
	1910 ...	4	6	...	...	1 2	32	300	29	807				

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 5, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

If it was the wish of the meeting that, say, £2 2s. should be substituted, the Executive Committee would have no objection to substitute that figure. At the same time, let them get the work done for a guinea, where possible.

Mr. PARR did not see why the charge should be put in the schedule at all. Why should not the Veterinary Inspector simply report to his authority, and let them engage the bacteriologist, and pay him what they liked?

The CHAIRMAN said that was just what they did not want. They wanted to keep the whole question of diagnosis in the hands of the Veterinary Inspector, the person responsible.

Mr. BRITTLEBANK considered there would not be the slightest difficulty in getting the work done for a guinea. People would rush after it.

Mr. HUGHES suggested that the matter should be left over for consideration by a future meeting.

Mr. MALCOLM said he could fully corroborate what Mr. Brittlebank had said.

The CHAIRMAN said it was for the meeting to decide whether the charge should be one guinea or two.

Mr. Martin proposed, and Mr. Green seconded, that the charge should stand at £1 1s., as proposed by the Executive Committee, and upon being put to the meeting, this was carried with only a few dissentients.

Some discussion also took place upon the charges in regard to the tuberculin test, and it was decided, on the motion of Mr. Crowhurst, seconded by Mr. Grasby, that the recommendation of the Executive Committee with regard to these charges be adopted.

Mr. HUGHES proposed that the Executive Committee's recommendation—a charge of 10/6 each for post-mortem examinations—be adopted, and Mr. Crowhurst

seconded the motion, which was carried unanimously, without discussion. The recommendation with regard to travelling expenses was also adopted.

Mr. CROWHURST—in reference to the recommendation that there be no charge made for the valuation of a condemned animal—argued that it was most unfair that veterinary inspectors should be asked to perform such a duty (which he ventured to think was a very important one) without any remuneration at all.

Mr. BROOKES (Warwick) rather sympathised with the last speaker. He thought it would be better to leave the valuation to be done by an outside, independent valuer, rather than they should do it for nothing, and so get neither payment nor credit for their work.

Mr. RENFREW thought they would be making themselves look very small if they did this work for nothing.

Mr. WARTNABY said he gathered they were obliged to undertake the work, according to the Order.

The CHAIRMAN said that was the case. In arriving at a decision on this item, they must not forget the remuneration they would already have received in respect of the condemned animal. On the whole, he did not think they could reasonably object to do this valuation without charge, and he suggested that they might very well let the item stand as read. He would put that proposition from the chair.

The Executive Committee's recommendation was accordingly adopted.

Next Meeting.—Mr. HUGHES proposed that the next meeting of the Association be held so as to coincide with the meeting of the National Veterinary Association. This was seconded by Mr. Toope, and agreed to.

Mr. PENNELL asked whether the scale of fees was intended to be presented and circulated among members.

Mr. WARTNABY asked whether there would be any objection to the scale of fees being sent round to the various county authorities, together with a tactfully worded letter.

Mr. ROBERTS (Chepstow) suggested as an alternative that each member of the Association should write to other veterinary inspectors in his locality for the purpose of discussing the proposed fees and submitting them to their respective authorities.

The CHAIRMAN thought this a very good idea.

Mr. GOLD wished to strongly support the suggestion of Mr. Roberts.

Mr. BANHAM said many inspectors were at present paid by time, and there might be difficulty in persuading authorities to change their established custom in this respect.

The SECRETARY thought it would be very unwise to adopt Mr. Wartnaby's suggestion, i.e., to send the scale of proposed fees round to the various authorities. He was sure it would be resented in some quarters as an impertinence.

After further discussion, Mr. Wartnaby withdrew his proposition, and the meeting decided to adopt the suggestion of Mr. Roberts.

The CHAIRMAN, while expressing satisfaction at the decision of the meeting, said he could not help thinking it would be useful if each member of the Association had a copy of the fees before him, and he suggested that a copy should be posted to each member as soon as they could be printed. At the same time, it must not be forgotten that the proposed scale of fees would be published in *The Veterinary Record*.

The SECRETARY announced that there were present in the room representatives of two firms who had sent certain appliances for inspection by members. Doubtless many of those present would be interested in seeing these. (Hear, hear.)

On the motion of Mr. Gooch, seconded by Mr. Gold, a hearty vote of thanks was passed to the Chairman, and the proceedings then terminated.

TREVOR F. SPENCER, Hon. Sec.

#### Harnessing the Bull.

Mr. Ray Moody, of Colville, Maine, U.S.A., has, according to *Hoard's Dairyman*, solved in a practical way the problem of keeping his stock bull fit by means of exercise, and at the same time making him do useful farm work. Mr. Moody owns a large farm and has a good herd of dairy cattle and among them a three-year-old Jersey-Guernsey bull. He has also a five-year-old stallion, and this horse and bull have become the principal assets of the farm. Recently, when on a visit to the farm we saw Mr. Moody riding a hay tedder with the bull and stallion hitched to it. This team was doing work creditable to any double horse team, and without any question was doing it as well as any team could. The owner had made a harness especially for the bull. He put a collar and hames on him, and placed, instead of a bridle, the end of a double rein into the ring of the bull's nose. The bull was hitched on the off side, and the guiding rein, coming between the stallion and bull, was hitched into the other side of the ring. The stallion was yoked into the regular harness in the usual way. The bull is not only used on the tedder besides the stallion, but in ploughing, Mr. Moody yokes the bull on ahead of a span of horses. He claims that the bull is as strong as either of his horses, and can stand more work, and he has even hitched him between a pair of horses to haul a spring tooth harrow, having the team three abreast.

The owner claims that by working the bull, the animal is kept supple and the exercise that he receives makes him better for serving purposes. He is of the opinion that a bull, if used in this practical way, is no more dangerous than a stallion is, if kept in a barn without exercise, as most bulls are. Though the bull has never shown any signs of ugliness, yet because of the traditional idea that a bull is apt to show temper, he takes no chances, and therefore uses the staff in the bull's nose until he is harnessed—*Farm and Home*.

#### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, May 2.

REGULAR FORCES. ARMY VETERINARY CORPS.

Lieut. F. J. Sheedy resigns his commission. Dated May 3.

May 6.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. J. F. Rankin to be Capt. Dated March 14.

#### OBITUARY

RICHARD ROBERTS, F.R.C.V.S., Tunbridge Wells.  
Graduated, New, Edin : 1875.

W. G. GIRVAN, M.R.C.V.S., Brookland, Middleton, Lanes.  
Lond : July, 1899.

Mr. Girvan's death occurred on May 2nd, at Belmont, Northumberland Street, Broughton, Salford, from Bright's disease, terminating in heart failure. Aged 37 years.

Mr. C. S. POOLEY, V.S., Hinxtun. Great Chesterford, Essex, died on April 27th, from cerebral hæmorrhage, at the age of 70 years.

#### CORRESPONDENCE.

##### TUBERCULOSIS ORDER OF 1913.

Sir,

With regard to the charges proposed for veterinary inspectors under the new Tuberculosis Act, and published in your issue of the 3rd inst., may I be allowed to express a few opinions. I consider that, taking them all round, the fees are not high enough to be spontaneously proposed by a profession claiming itself to be of real importance to the State.

As one gentleman remarked at the meeting of inspectors, held on April 30th, the proposed fees were lower than those he was accustomed to receive in his private practice. He would thus find himself in an awkward position with his clients. He was the only one at that meeting who appeared to see the matter from my point of view. We have been clamouring for a long time to be given our fair share of State medical work, and now by means of this new Act we are provided with a splendid opportunity of coming forward and justifying our opinions in the eyes of the public. But it seems to me we have made a very poor start. I mean that we shall never be considered the advanced scientific profession which we rightly claim to be unless we rate our services at a higher standard.

One of the chief reasons which private practitioners raised at the meeting already referred to, was that if they did not quote moderate charges the authorities would ap-



point whole time men. But surely this is a short-sighted policy, it really amounts to "undercutting"—a procedure which I have always been brought up to believe is entirely against professional etiquette. My contention is that if a private practitioner lost an inspectorship in this way, he would nevertheless benefit indirectly by being able to keep up his charges to private clients, for he would be considered a member of an important profession—the whole time man would be advertising this for him.

In conclusion, why should we not claim first class railway fares? The Army veterinary officer travels first class, then why should we openly admit that we civilians are in a different status? Is our work not equally important? The status of the A.V.C. has been obtained by those who would not rest until the veterinary officer enjoyed all the privileges of other officers, they foresaw that the profession would never be properly recognised until this was brought about. By accomplishing this, an inestimable advantage was gained for the profession at large.

Then I humbly suggest that these are the lines upon which we should proceed with regard to this new Act in order that we may perform our duties more thoroughly, and with more self-respect.—Yours faithfully,

"ONE NOT PERSONALLY AFFECTED."

#### THE MILK BILL AND TUBERCULOSIS ORDER.

Dear Sir,

I desire to call your attention, together with that of your readers, to the desire which evidently exists among agriculturists generally, that members of our profession shall be selected for those positions arising out of the new regulations, for which they alone are properly qualified, in order that we may—while yet there is time—do our part to prevent supplantation by the medical officer of health. Recently, at the Central Chamber of Agriculture, when the above subjects were under consideration, Mr. C. Middleton, of Cleveland, said, that he thought the Milk Bill a great improvement on its predecessors, *but in regard to inspection it was distinctly worse*, since it provided that inspection should be made by the medical officer of health, who might be accompanied by a veterinary surgeon. He contended that it should be the other way about, and that inspection should be by a veterinary surgeon. (Applause).

The Editor of *The Farmer and Stockbreeder* (14th inst.) writing under "Current Notes," says: "Mr. Burns's Milk and Dairies Bill has been partly modified, but the changes are perhaps not all for the better. *Farmers feel very sore about committing inspection to the medical officer.* Surely the veterinary surgeon has the only defensible claim to look after live stock! This is clearly a blot on the measure." I think the public generally would endorse these opinions if allowed expression, but the decision will be given by Parliament, and I suggest that each one of us should write to the M.P. of his particular division calling attention to the point, and inviting his assistance in the prevention of an injustice.—Yours very truly,

THOS. A. HUBAND.

Kingsdown, Sevenoaks.

#### SOME PUZZLING QUESTIONS.

Sir,

I see it has been recently stated by Mr. McIntosh that the veterinary profession receive between £20,000 and £30,000 yearly from insurance companies. I should like to know (1) how this estimate is arrived at? (2) if it be a correct estimate then how is the £4 to £5 per head calculated? (3) can a veterinary surgeon act satisfactorily to two clients, viz., as agent and examiner for an insurance company, and as veterinary surgeon to a regular client having his horse insured? Conflicting interests appear to occur in these two positions. (4) Is the tubercle bacillus really easy for any but an expert microscopist to demonstrate? Recent opinion would seem to declare that it is, but past teaching supported the view that it was not.

The opinions of some of your readers on these questions would be interesting.—Yours truly,

G. MAYALL.

#### OXYGEN V. AIR IN MILK FEVER.

Sir,

Having read in last week's *Record* the note from "One Interested," I should like to state, in answer to his query that I have had several cases recently in which filtered air has been injected into the udder of cows suffering from milk fever, and have had them go down a second time from 24 hours to 6 days later, though no case has proved fatal.—Yours faithfully,

OSCAR STINSON, M.R.C.V.S.

Marden, Kent.

#### ROUGH HINTS ON MICROSCOPY.

Sir,

Many microscopists with whom I come in contact have alluded to the messy troubles associated with oil immersion objectives in cedar oil. Perhaps a tip for cleaning may prove useful. Keep a small bottle of xylol or toluol, in the cork of which a small camel hair brush is fixed. In use drain the brush fairly well in the neck of the bottle, and sweep up the oil from the cover glass; wipe the brush on a clean rag and dip again into the bottle, give the glass another sweep with the brush. The same procedure applies to the O.G. as a clean handy immersion liquid. "Paraffinum Liquidum" is very pleasant to work with. It has a refractive index similar to cedar oil. Water immersion objectives are excellent for much bacteriological work, as with stained specimens one usually examines them in water, and the excess from the washing need not be blotted out. Moreover, probably not more than one in a thousand specimens will ever get to the stage of being mounted in balsam. But it is advisable to use measured cover slips and especially so when working dry objectives—these can be purchased—as it is not worth the expense investing in a measurer. About the most annoying thing when at work is a greasy slide or cover glass. The following hints may be useful, as they will insure slides and covers always ready for use. Stew them gently in chromic acid solution till all the resin, grease, etc., are destroyed. Wash thoroughly in tap water, till no trace of yellow remains, then rinse in distilled water, drain and keep in rectified spirit or methyl alcohol, but not in ordinary methylated spirit. When a slip is wanted it can easily be dried off a few inches above a flame, or if many are required, the spirit is conveniently evaporated while they lie on a piece of nickel gauze. Of course the slides and slips must always be handled with forceps.—Yours faithfully,

R. M. MALLOCH, M.R.C.V.S.

Kirkby Stephen.

#### SOUTH AMERICA—CAUTION.

Dear Sir,

As I have recently received several letters from veterinary surgeons making enquiries as to prospects in this country and have not time to answer all in detail, perhaps you would be good enough to give publicity to the following in your valuable paper.

I strongly advise British veterinary surgeons to steer clear of this country unless they possess: (1) A fair amount of capital; (2) plenty of influential friends in the country; (3) and most specially a good knowledge of Spanish, i.e., ability to converse and correspond in this language. Without the above qualifications a V.S., no matter how good a practitioner he may be, will stand a good chance of famishing here.

I write this after many years experience of the country. The letters which have recently appeared in *The Live Stock Journal* and other English papers, warning Britishers against coming to this country without capital, apply equally to veterinary surgeons as to others. I hope this may help some veterinary surgeons to avoid making the mistake I did in coming to this country.—Yours faithfully,

A. MARSTON, M.R.C.V.S.

Buenos Aires. April 16.

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1297.

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VOL. XXV.

## THE TUBERCULOSIS ORDER.

The Tuberculosis Order has now been in force for nearly three weeks; and it would be interesting to know what is happening under it. What amount of work is it yielding to veterinary inspectors?—much, or little, or none at all? We fancy that in many districts, if not most, inspectors are finding that the Order has so far brought them in surprisingly little work. This is generally the case when a disease that is always with us is first scheduled. Very few cases are reported at first, but continued administration soon alters matters. A year or two hence, when the provisions of the Order have become well known, and a few prosecutions have brought the danger of disregarding it home to owners, there will be much more work under it than is likely to be just now.

A more important question is—what are the local authorities doing, and what methods of working the Order do they seem inclined to adopt? The Order gives much latitude to local authorities as regards details of administration, but we have yet to learn how they propose to exercise their powers. Is it proposed in any district, for instance, to make extensive use of the tuberculin test? Again—and this is more important—to whom is the microscopic examination of milk, faeces, and discharges to be entrusted? Apart from purely clinical examination, this is the most important work under the Order. Are local authorities leaving it to the veterinary inspectors, or do they require material to be sent to neighbouring universities or, as the Kent County Council are doing, to their own laboratories, which as a rule are presided over by the M.O.H.? Probably all these plans are being followed in different districts, but which is the most general, and what local authorities are adopting each?

It would be more than interesting to all veterinary inspectors if men from different districts would intimate what each district is doing. Then we could compare the different procedures, and the result of such comparison might be valuable. No doubt it will be found that there is room for improvement in some districts. That improvement would probably be more easily effected now, at the initiation of the Order, than at a later period, when every authority's system has become established. For that reason, any information of the doings or intentions of local authorities in any department of the administration of the Order would be helpful.

## THE SERO-THERAPY OF STRANGLES.

G. Bertolotti, of Castelleone, reports various favourable results he obtained, during 1912 and in the first two months of 1913, from the use of the antistreptococcal serum provided by the Milanese Sero-therapeutic Institute. He used the serum for the first time upon twelve horses belonging to the same owner. The animals were seriously affected with strangles, chiefly with pulmonary localisations, and Bertolotti was impressed by the alarming symptoms they showed. The next day he found a very appreciable amelioration in all, and the improvement continued till it ended in complete recovery in a few days.

The next experience was also upon twelve horses, belonging to another owner. These were seriously affected with strangles with pharyngeal and pulmonary manifestations, and in them also the most favourable result was obtained.

A few weeks later, on the same establishment upon which the last-mentioned cases had been, Bertolotti treated four other horses with grave symptoms of infectious pneumonia, and obtained speedy and perfect recoveries.

The next case was a young pregnant mare, affected with a phlegmonous asphyxiating pharyngitis, and with a temperature of 106.5° F. The treatment was immediately followed by a sensible amelioration in the respiration and marked reduction of the temperature. Recovery was complete in a few days.

Then in November and December, 1912, Bertolotti used the serum upon forty-five horses belonging to five different owners, affected with strangles with a tendency to anasarca and pneumonia. In all these he obtained surprising effects, with speedy and perfect recoveries.

Bertolotti's other cases (belonging to three different owners) were a filly affected with infectious pneumonia and showing alarming symptoms, a horse with super-added symptoms of anasarca, and finally two mares (one pregnant) both affected with infectious pneumonia. All recovered perfectly in a few days.

Bertolotti emphasises the uniform success of his cases, which have convinced him of the very great efficacy of the serum as a curative agent, if used at the beginning of any manifestations of strangles of whatever nature. Used as a prophylactic, it rendered the animals immune for a very short period of time; after which the symptoms of the disease became manifest, but in a slight form which quickly disappeared under ordinary treatment.

Bertolotti's system of procedure has been and still is, instead of attempting to immunise the



horses, to inject the *curative* dose of the serum at the first sign of an elevation of temperature. With this end in view, he takes the temperatures of all the horses of suspected and infected establishments two or three times daily.—(*La Clinica Veterinaria*.)

#### THE CONDITION OF THE YELLOW BONE MARROW IN ANIMALS SLAUGHTERED IN DISEASE.

It has been recognised by practical experience that the bone marrow undergoes essential alterations in septicæmia. This fact has induced R. Strohschneider, of Innsbruck, to regularly examine, for a long time, the bone marrow in animals slaughtered when suffering from disease. He now reports (*Tierärztl. Centralbl.*) his conclusions. His experience has convinced him that the inspection of the bone marrow is fully as important as that of the spleen, kidneys, or liver, and in no case should it be neglected.

Although the morbid alterations of the bone marrow are subject to variations, two chief forms can be distinguished.

In the first, the yellow bone marrow loses its fatty constituents. It becomes grey, discoloured, or deadly pale. Its consistence is thin, shrunken, flabby; or else firm, elastic, hard, and tough. The bone marrow always assumes these conditions in chronic diseases associated with emaciation and loss of strength, in long illnesses, and especially in the more advanced stages of tuberculosis.

In the second, the yellow bone marrow is yellow-red, bright red, or dark red, very soft, trembling like jelly, liquefied, or quite dissolved. This condition is highly suspicious, and occurs in very acute disease, in violent fever, and in septicæmia.

Strohschneider thinks that when meat comes to inspection without the viscera, the examination of the yellow bone marrow often forms the surest base upon which the inspector can form a judgment of the meat.—(*Berliner Tier. Woch.*)

#### TREATMENT OF OVINE DISTOMATOSIS WITH EXTRACT OF MALE FERN.

Raillet, Moussu, and Henri have already pointed out that the ethereal extract of male fern has a good effect upon distomatosis in sheep. Prof. M. Blanchard has now tested the same remedy, and reports (*Annales de la Science Agronomique*) his results.

He finds that the extract, if it is given to sheep at the very beginning of the disease—that is, when the flukes have just attacked the gall passages, when the organic tissue is not yet altered, and before a hypertrophy of the liver has set in—exercises a radical influence. All the flukes disappear, and the animals experience none of the harmful effects of the disease.

The drug is also not less effective in animals which have been affected with distomatosis for some time, provided that the lesions are not yet especially severe. At the end of the period of treatment, all flukes are expelled; and the lesions they have caused cicatrise. But if the disease is already advanced, the liver no longer in a condition to dis-

charge its functions, and the anæmia too pronounced, the drug cannot exercise the same beneficial effect. Generally, in these conditions no good results can be expected from it.

Blanchard lays stress, as Moussu has previously done, upon the necessity of using only preparations of proved activity. The extract is liable to variations in the proportion of its active substance, and consequent inequalities in its therapeutic effect, and should therefore be obtained from a reliable source.

The doses are 10 to 25 grammes (according to the body weight) for the ox, and 3 to 5 grammes for the sheep. The drug is mixed with a little oil (10 c.c. of oil for the sheep, and 20 c.c. for the ox) and given to the animal in the morning fasting.—(*Berliner Tier. Woch.*)

#### PERFORATION OF THE VAGINA AND RECTUM DURING PARTURITION IN A MARE.

Jerke reports (*Zeitschr. f. Vet.*) a case of perforation of the vagina and rectum in parturition in a mare of heavy breed, a primipara. The foetus was fairly well developed and probably abnormally disposed, and one of its feet penetrated the vagina and rectum about 7 centimetres (2 4-5th inches) from their openings. The resultant wound was about 3 to 4 inches long, and about 3 litres (roughly 5½ pints) of blood flowed from it. It healed completely under appropriate treatment, despite long-continued contamination of the vagina with masses of faeces, which for a long time escaped through the vagina. The whole duration of treatment was 62 days; and the general condition of the mare showed no special disturbance throughout the period.—(*Berliner Tier. Woch.*)

#### AN IMPROVEMENT UPON THE IODINE METHOD OF SKIN STERILISATION.

Taphanel has recently recognised that the bisulphite of sodium, in dilute solution, blanches teguments stained with iodine. Sabbatini, in place of the bisulphite, prefers the hyposulphite of sodium, which, in addition, enables the irritating effects of the metalloid to be avoided.

A 5 per cent. solution of hyposulphite of sodium is sufficient to render a 10 per cent. solution of iodine in alcohol (which is the strength of the tincture of the Belgian Pharmacopeia) inoffensive. The hyposulphite solution has no harmful influence upon the tissues.

The following is the procedure of disinfection which Sabbatini recommends for the intact skin, for wounds, and for mucous membranes.

Paint the area to be disinfected abundantly with tincture of iodine, and cover it with a layer of sterilised absorbent cotton wool.

At the end of from five to ten minutes (the time necessary to obtain a proper asepsis) pour a sterilised 5 per cent. solution of hyposulphite of sodium, previously brought to a temperature of 104° F., upon the cotton wool. When the wool is completely soaked, compress it lightly upon the underlying parts, and lift it off at the end of two minutes. The region, disinfected and decolorised, then re-



mains bathed in the hyposulphite solution, a condition which is without disadvantages, for the hyposulphite itself is a feeble antiseptic.

It is indispensable to warm the hyposulphite solution, for the elevation of temperature increases its decolourising power tenfold.—(*Annales de Méd. Vét.*)

W. R. C.

#### ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

A meeting took place at the Great Western Hotel, Swindon, on Friday, April 25th, the chair being taken by the President, Mr. D. Wyllie, of Staines. Owing to various causes the attendance was not so large as had been anticipated. Those present included Messrs. R. J. Verney, E. J. Mellett, G. P. Male (Hon. Sec. and Treas.), J. C. Coleman, J. H. Parker, G. E. King, and W. T. D. Broad, members.

Visitors: Messrs. Charles E. Perry, Bristol; and Ivan R. R. Coleman.

The minutes of the previous meeting were confirmed.

Apologies for inability to attend were received by letter, telegrams, and telephone from Messrs. R. C. Tennant, T. W. Lepper, H. G. Lepper, J. Sutcliffe Hurndall, W. Shipley, T. B. Goodall, J. McKelvie, S. H. Slocock, E. Langford, and others.

*New Members.*—The following gentlemen were unanimously elected members of the Association:—

Mr. G. H. WILLIAMS, M.R.C.V.S., of Chippenham, proposed by Mr. J. C. Coleman, seconded by Mr. Willett.

Mr. W. C. HAZELTON, M.R.C.V.S., of Buckingham, proposed by Mr. Mellett, seconded by Mr. Verney.

Mr. J. MCKELVIE, M.R.C.V.S., of Hungerford, proposed by Mr. Male, seconded by the President.

Mr. ED. LANGFORD, M.R.C.V.S., of Shaftesbury, proposed by Mr. Coleman, seconded by the President.

*Delegate: R.S.I.*—On the proposition of the Hon. Sec., seconded by the President, Mr. J. C. Coleman was unanimously appointed delegate to represent the Association at the Congress of the Royal Sanitary Institute, to be held at Exeter on July 7th to 12th.

*Next Meeting.*—Owing to various causes, the fixture of the date and place of the next meeting of the Association was not determined, and after some discussion, on the motion of Mr. Verney, seconded by Mr. Coleman, it was left to the President, Mr. Percy J. Simpson, and the Hon. Secretary to fix the date and place.

#### FEES PAID BY INSURANCE COMPANIES.

The adjourned discussion on this subject was resumed.

Mr. J. C. COLEMAN said he had been in correspondence with two or three insurance companies (which he named), pointing out to them the inadequacy of the fees at present paid, and, indeed, the absurdity of expecting a professional man to make an inspection for so small a sum. The reply he had received had not, on the whole, been unsatisfactory, and he thought that something practical was being done, although he feared that they would have difficulty in fixing anything like the fees that were talked about at the last meetings, because if the fees were substantially raised, the companies might not get people to insure their animals.

The Hon. Sec. said he was at the meeting of the Southern Branch of the National Association in London the previous week. The whole matter was then discussed, and a small committee was formed to approach the representatives of insurance companies and

try to get a revision of the whole scale of fees paid to veterinary surgeons. He understood that the Secretary of that Committee, which was now at work, would report to them as soon as some definite decision had been come to. Possibly, therefore, they might leave the matter until such report was received.

The President observed that the fees now suggested were much more liberal than they had been; that might be due to the present agitation. He himself had never had any difficulty at all with the insurance companies.

Mr. KING said his experience did not tally with that of the President. Until recently, when he had had an inadequate fee offered, he had written a polite letter, and the company had, generally, met him; but recently he had had a serious altercation with one company, who had offered him 5/- to inspect hunters worth 150 guineas, and he had claimed 10/6, to include travelling expenses; and, having had to go a second time, he had asked for a further 5/-. The company named had absolutely refused to pay; and he felt so strongly on the matter that if they still declined he would County Court them for the amount. He had a bill against the same company for £6 odd, and they offered him a cheque for £2 odd. He did not know if it would "come to blows." If all members of the profession stuck together he thought that things would be different.

The President and Mr. King made some observations upon a circular issued by a certain underwriters' association to members of the profession.

The Hon. Sec. proposed that the further discussion of the question be left over until the sub-committee appointed by the Southern Branch of the National Association had reported.

This was seconded by Mr. Verney, and unanimously adopted.

#### SOME DISEASES COMMUNICABLE FROM THE LOWER ANIMALS TO MAN, ESPECIALLY THROUGH THE MEDIUM OF MILK AND MEAT.

By J. C. COLEMAN, M.R.C.V.S.

Mr. President and gentlemen,—In submitting to you the following notes for discussion, I must apologise for their meagreness. The subject if treated fully is far too large to go into thoroughly in the short time we have at our disposal.

The present juncture is a very important one from a veterinary standpoint, and unless we throw aside the lethargy of which we are accused, and let the public see that we are, more or less, masters of the science which we practice, the position, which by right of our calling belongs to us will pass into other hands.

The close similarity in the anatomy and physiological action of the organs in all mammals cannot be disputed. It must therefore follow that the same remarks apply to pathological conditions affecting the same. That a large number of pathological conditions are communicable from mammal to mammal will not be gainsaid, it is, however, my intention to deal only with a few of those which are communicable from the lower animals to man. To what extent the lower animals contribute to the dissemination of disease among the human subjects, I am afraid both professions must admit (to put it in mild words) "That there is much yet to be known."

As the majority of diseases are communicable to man from the lower animals, through the medium of their flesh or milk, I purpose confining my few remarks, principally to those diseases disseminated in this way. Many diseases are communicable to man, which show precisely the same clinical symptoms and pathological appearances and there are others which do not.

Again, the lower animals may act only as the cultivating ground for certain bacilli, or disease germs, apparently suffering no inconvenience whatever them-



selves. The obverse may apply, but upon this point I am afraid we are, at present somewhat ignorant, collaboration between the two professions, I felt sure would solve many existing difficult problems, and bring to light the cause of many diseases about the origin of which little or nothing is known.

As I mentioned in a previous paper, many processes are adopted, to render diseased and unwholesome milk and meat wholesome, so to say, but I contend that no such process is of avail unless it destroys the toxins formed, as well as the germ of the disease.

Before proceeding to the discussion of diseases proper, some mention must be made of certain parasites which are common to the lower animals and man, and often in one phase or the other of their existence are the cause of disease.

**Trichinosis** is a disease which a few years ago was common in Germany, and is caused by the presence of a nematode worm, *Trichina spiralis*, in the muscles of the body. Thanks to the Continental Veterinary Meat Inspectors, I believe that to-day cases in the human subject are more rare, when they do occur it is in the following manner. A piece of infected flesh is eaten, and upon entering the stomach the encysted capsules are dissolved by the gastric juice, leaving the trichinae free. The females produce enormous numbers of young, which immediately migrate, penetrating the intestinal walls and reaching the tissues. Acute pains are experienced during this transition stage. When recovery from this disease follows it is owing to these parasites becoming encysted and incapable of doing further harm to its host.

**Tænia Saginata** of man is a cestode which in its cystic form is of interest to us and is known as the "Beef Bladder Worm" (*Cysticercus Bovis*).

**Tænia Solium** of man also spends its cystic life with us, in a disease known as "Pig measles" (*Cysticercus Cellulose*).

**Tænia Echinococcus**. The adult worm is found in the dog, the bladder worm or proscelix stage occurs in the lower animals and man: in the latter, it produces a condition known as "Hydatid" which usually proves fatal, affecting any organ, eyeball, liver, brain, etc.

**Trichopy Ectothrix and Endo-Ectothrix** are forms of ring-worm occurring in the lower animals, but are transmissible to man, producing large invasion zones, which proves very troublesome to treat.

**Tuberculosis**. The disease uppermost in our minds at the moment, and in my opinion the one which will raise the veterinary surgeon to the highest pinnacle of fame, or lower him to the bottomless pit of ignominy. All and everything depends upon ourselves, let us therefore buckle on the necessary armour, and fight the fight, shoulder to shoulder, valiantly.

Tuberculosis is a disease now known to be caused by the *B. Tuberculosis*. A few years ago the human bacillus was looked upon, as a distinctly different organism to that affecting bovine or other animals. It has however been proved, that, although human, bovine, and avian, tuberculosis present certain minor differences in the laboratory, they are each capable of transmitting the disease to other than their own kind. The heredity of the disease seems to be disproved by the fact that, at birth, it has never been discovered, even in the young from a tuberculous womb. Of course they often contract the disease soon after birth, by taking the milk from tuberculous mammae.

I have observed, with alarm, the rapidity with which the disease has increased in the last 25 years. So recently as 1900 Curtis quotes "That this disease whilst commonly occurring in bovines and fowls, is rare in horses, cats, dogs, and pigs, and very rare in sheep and goats." I regret to say that to-day it is very common in bovines, cats and pigs, and certainly more common than it was in horses and dogs.

The bacillus is fairly easy to discover in a smear form, or tuberculous gland, in centrifugalised milk from a tuberculous udder, or in a smear from any other tubercular lesion, or the urine in tubercular nephritis, by the Ziehl-Nielsen method of staining. In human bacteriology, however, there are two bacilli, which closely resemble *B. Tuberculosis*, the *Smegma bacillus*, which is found in caseous-looking secretions which collect between the prepuce and glans penis, etc., and the *Syphilis bacillus* of Lustgarten.

The *Smegma bacillus* however, although not decolourised by a 25 per cent. sulphuric acid, is rapidly decolourised by alcohol, while the *B. Tuberculosis* is not.

The *Syphilis Bacillus* is at once decolourised by a 25 per cent. sulphuric acid, but is less susceptible to the action of alcohol. When all other means of diagnosis fails, inoculation of a guinea-pig—a most highly susceptible animal, is diagnostic; positive results being obtainable in a fortnight.

This disease is communicated to man, usually through the medium of the meat and milk supply, and it is a most regrettable fact that the Local Government Board should have so long declined to listen to their scientific advisers, to bring about a thorough inspection by competent men, of these two important articles of food.

Addressing a meeting of the Gloucestershire Chamber of Agriculture on Saturday, Prof. Penberthy (chairman of the Cattle Diseases Committee of the Central Chamber of Agriculture) said he understood there was a growing feeling among doctors, that the effect of taking bovine tubercle bacilli might be a blessing rather than a curse. A high authority on the subject recently stated: "It is most probable that a large number of people are immunised against pulmonary tuberculosis in after-life by having been infected in early childhood by bovine bacilli through milk or food." If that were so, said Prof. Penberthy, the action of the Government in trying to get rid of the bovine bacillus too soon might prove a curse.

**John's Disease**. I must here make mention of a disease which clinically resembles tuberculosis in many of its phases during the life of the animal, I allude to John's Disease. The bacillus of which is an acid fast one, but the post-mortem appearances of the disease are usually diagnostic, without the necessity of resorting to inoculation of guinea-pigs.

I am not aware that the disease is communicable to man, although I think that investigation may prove that it is.

**Anthrax** is caused by the *B. Anthracis*, most animals are susceptible to this disease. In animals the infection probably most often occurs through the ingestion of spores, as the bacilli are readily destroyed by the gastric juice.

In man it is produced usually by inoculation, and shows itself as "Malignant Pustule," when the disease commences in the skin as a dark papule, simulating the bite of an insect, upon which a vesicle full of clear serum soon arises. Subsequently, new vesicles form a ring encircling the now enlarged, deeply congested, and almost black papule. Infection spreads by the lymphatics, which become enlarged and cedematous, and when in the region of the mouth or larynx are very serious.

The incubation period is short, frequently not more than 3 days. Premises upon which the disease occurs are kept in quarantine for 12 days.

Sir Stewart Stockman says: "That we cannot always rely on a microscopical examination alone to diagnose the disease correctly."

Mistakes often arise by confusing the Cadaver Bacillus with that of anthrax. Ostertag lays stress upon this point, since these bacilli often find their way into the surrounding structures from the intestines.

Under the Anthrax Order, 1910, Art. 3, Clause iv, it is provided that if the veterinary inspector suspects, from his microscopical examination of the blood, that anthrax exists, he is to send samples for purpose of further investigation to Alperton Lodge, but, under Art. vi. of same order it is provided, that upon the Local Authority receiving a certificate from the Veterinary Inspector of the suspected existence of the disease, they are instructed to proceed forthwith to the destruction of the carcass. As often arises, the Board's Chief Veterinary Officer, after submitting the material to an elaborate laboratory examination acquaints the owner, through the usual channel, that anthrax does not exist. Now in view of everything being done in the two or three days which have elapsed since the local Veterinary Inspector gave it as his opinion that the case was one of anthrax, I fail to see what good can be derived by informing the owner of the negative decision of the Board's Veterinary Officer, except for statistical purposes.

It tends often to lower the local Veterinary Inspector in the eyes of a client, who is ignorant of the fact that he has been called upon to make a hasty diagnosis, while the Board's Veterinary Officer has been able to take his time and resort to cultivations upon media, or inoculations, if necessary, in addition to a microscopical examination.

**Foot-and-mouth Disease** is not so common as it was at one time: the recent outbreak, however, is proof that, at some times, we shall have it with us. It is a febrile disease, which most often attacks bovines, although sheep and pigs may become affected. The symptoms of this disease being so well known I need not repeat them. The pathology of the disease is not yet well defined, but that it is inoculable and contagious is beyond doubt. The transmission to man is probably brought about by handling the teats and udders of affected cattle or drinking milk from cows affected with the disease.

**Cow-pox or Bovine Variola** is also a disease which is communicable to man, usually by inoculation, but Dr. Chalmers, of Glasgow, and Dr. Robertson, of Leith, reported in *The Lancet* of September, 1904, and Jan., 1905, cases of epidemic sore throat which they attributed to the drinking of milk from cows affected with cow-pox.

**Actinomyces** appears to be a disease occurring in most animals, including man, but is most common in cattle, and it is believed that cereals and straw are the media through which the contagion reaches them. The transmissibility of the disease directly from the lower animals to man is still an open question. One author quotes, "Among 75 persons attacked, contact with animals could not be traced, 33 of them being millers, tailors, glaziers, or merchants." He has no proof however that they had not eaten meat or drank milk from affected animals.

**Mammitis** may also be mentioned, being an inflammatory condition of the udder. In an advanced case there is little or no fear of the milk being used for human consumption, there being only a small quantity secreted, and that is so altered in appearance and smell that it would be easily recognised. In the early stages of the disease it may pass unnoticed, and upon being consumed has been known to produce sore throat and infantile diarrhoea.

There are many other diseases which are undoubtedly communicable to man from the lower animals through the media named, but I think the above are sufficient for our purpose, namely, to prove the grave necessity for a more efficient and adequate inspection of our meat and milk supply.

There are three diseases belonging to the category mentioned in the early part of these notes as being capable of communication to man without the animal showing

symptoms of the disease. I allude to diphtheria, scarlet fever, and typhoid. I have no actual experience except in the case of the first named—diphtheria, but it is not a very great stretch of imagination to assume that what takes place in that disease may apply to the other two.

The milk is believed to be contaminated directly by so-called carriers of the disease, or by sores on cows teats being inoculated and become only media of cultivation of the bacilli. In the case of diphtheria, I have had experience of two outbreaks, which if not caused in the first instance by this means it certainly was one of the means by which the outbreaks were prolonged.

I am astounded, when reading Ostertag's book upon Meat Inspection, to note the number of virulent diseases in which, in his judgment, the meat of the animals affected is "fit for human consumption," or is "not known to cause disease when eaten by man." Is there not a very large field for investigation open to us in this direction?

I have no hesitation in saying that I would condemn as unfit for the food of man the flesh or milk of any animal which was suffering or had suffered from any highly febrile disease; if on no other grounds than that the chemical and other changes which are bound to have taken place in the tissues has lowered its nutritive value as food.

I further contend that in the event of doubt as to the fitness or unfitness for human consumption of a carcass of meat, we should always be on the safe side and condemn it, as it is far wiser to err financially than to endanger human life.

Dr. Robertson, in his book on meat inspection, states that "it can be readily imagined how meagre our knowledge of human pathology would have been, had demonstrators in anatomy and pathology immediately destroyed all bodies which exhibited conditions that were at the moment unintelligible to the observer. Much useful material is lost at our large slaughter-houses, because no one in charge is skilled in the significance of the various morbid conditions encountered."

What a terrible admission for an eminent authority to make, and still the powers that be make no effort to remedy the evil.

In conclusion I beg to submit to you two resolutions. [These were considered, and dealt with later].

#### DISCUSSION.

The PRESIDENT said he was sure that all present were very much indebted to Mr. Coleman for his very able and interesting paper. (Hear, hear). The different diseases communicable from animals to the human subject were, they knew, very numerous; and it was clear that present conditions in abattoirs and slaughter-houses were not conducive to lessening such dangers. Mr. Coleman was perfectly right, also, in saying that there was not an adequate veterinary inspection even when animals were found to be diseased. Things were better now than they used to be, and they would hope that they would become still better, and that they—as a profession—would have more to say. As to trichinosis, they did not have much of it in England. The prevalence of that disease in Germany was doubtless greatly due to the German taste for eating pork which had not been properly corked. It was quite nice, and was very much appreciated as a dainty in the North of Germany; but it was more particularly in North Germany that the disease was prevalent. They never found "real" Jews suffering from trichinosis. In England all meat was thoroughly well cooked, and owing to that the danger of eggs getting into the human system was minimised. Trichinosis was a very painful disease.

As regarded mastitis, there was in Woking some seven years ago a most obscure outbreak among a large



number of children. It was not diphtheria, but was proved to have come from a cow in the district, which was suffering from mastitis. They took a swab, but never diagnosed. While the profession were all moving in the right direction in agitating to be put in their proper position as regarded legislation affecting animals, milkshops and dairies, and tuberculosis, he thought they had better strive to get one thing at a time. If they were continually "kicking" they might be shelved for years and years. Mr. Coleman was perfectly right in his ideas, however, and he was sure they were all really in complete agreement with him. (Hear, hear).

Mr. KING was not quite sure that he understood Mr. Coleman to say that diphtheria was communicable from animals to man. He (Mr. King) had never heard of diphtheria in animals—in bovines at any rate. A few years ago they had a rather extensive outbreak of diphtheria in Abingdon, and the Medical Officer of Health went into the matter, and found that the disease was traceable to one particular dairy. He was asked to go with that gentleman to inspect the animals, and on their way to the farm the Medical Officer said he thought the outbreak was caused by the condition of the cows' teats. He (Mr. King) examined the animals and found that some of the cows had certainly abrasions and sores, and a few vesicles on their teats; but after careful examination he said he did not think the cows had anything whatever to do with the outbreak. He suggested that the probability was that the disease had been carried from one house to another by imperfectly cleansed milk cans left at and collected from door to door. They accordingly went to the dairyman's house, and the man said he courted every investigation. The Medical Officer inspected the arrangements for cleaning the churns and milk-cans, and in a back place they found what neither of them was prepared for—the man's wife was "cleaning" the churns and cans with water in which she was washing her own under-linen! He stated that before the Abingdon Town Council. It showed one what ideas the ordinary dairyman had with respect to cleansing his utensils. In Denmark they had a most elaborate way of cleansing thoroughly all vessels directly they came in. Also the dairy authorities in that country insisted on farmers feeding their cows in a particular way at certain seasons of the year.

He did not himself believe that diphtheria existed in bovines at all. (Hear, hear).

Mr. MELLETT said he knew that milk was a great carrier of diphtheria. That was proved in a case at Twyford, in which he appeared for the owner of the animals.

The HON. SECRETARY remembered the case mentioned by Mr. Mellett. The medical officers put it down to a cow having the disease, but if they had gone thoroughly into the matter, he held they would have found that the cow was only a "carrier," although they did find diphtheria bacilli on the cow's teats.

Mr. KING! The bacilli might have been conveyed by a man who had diphtheria in his home.

Mr. BROAD thought there ought to be some combination between the medical and the veterinary professions in these matters, for some of the diseases referred to certainly required collaboration on the part of the former. It was known that bovine tuberculosis was communicable very rapidly from one animal to another.

Anthrax was a little bit of a bugbear, and no doubt some of them might err at times. As to cow-pox, he had had a few serious outbreaks during the last year or two, but they did not hear any more of it. Perhaps all the sore throats and other things might not be diagnosed.

Mr. VERNEY quite agreed with Mr. Coleman as to the diagnosis by the Board. He had a case recently which the Board declared not to be anthrax, in a pig where he had seen what he considered to be a very full

quantity of anthrax bacilli in the laboratory and in the tube also. Unfortunately both the slide and the colony were destroyed before he got a letter from Sir S. Stockman, who was very anxious to investigate it. A medical officer of health happened to see it, and he was quite satisfied it was a case of anthrax. It was not, however, confirmed by the Board, and the form was withdrawn. That showed them the necessity of keeping the slide or keeping the growth if they got a case.

Mr. PERRY said he had heard Mr. Coleman's papers several times, and had enjoyed very much the very instructive one read that day. He quite agreed with what had been said about cow-pox. If they had to destroy all the milk from cows suffering from cow-pox it would be rather serious for the farmer, because it was quite a common thing. He quite understood that cow-pox itself could be contracted from the milkers. As veterinary surgeons they could tell the public that scarlet fever and diphtheria did not come from the cow, although milk was a great carrier of disease, which was conveyed by people who handled the cow or the milk. (Hear, hear). As regarded anthrax, it was very awkward, if an inspector had certified it, to get his diagnosis negatived by the Board; but those things often happened. He (Mr. Perry) was not himself an inspector, but he had reported suspicious cases, and let the local inspector "have a go" at them.

The HON. SECRETARY remarked that the "Timothy grass" bacillus had been omitted from the list of acid-fast bacilli which might come in the milk, and might very easily be mistaken for the tubercle bacillus. If the specimens were taken in the way suggested by Mr. Brittlebank at the meeting in London—the cow milked out almost dry, the udder massaged thoroughly, and what was left then milked down into a sterilised vessel—any acid-fast bacilli might be safely said to be tubercle bacilli. Of course a negative result would not prove that the cow had not got a tuberculous udder. Then as to Johnes disease, as Mr. Coleman said, it could be diagnosed on a post-mortem examination, but under the Tuberculosis Order they would have to find it during life; and no doubt it would be sometimes difficult to diagnose between a cow that was emaciated by Johnes disease and one emaciated by tuberculosis. The only way was by the tuberculin test, and if the cow was too far gone she might not react to that. With regard to Mr. Coleman's resolution, he thought it only fair that the Board should acquaint the owner direct whether he had had anthrax in his place or not, but that some modification might be made in the way in which it was reported to him. It was sometimes difficult to find anthrax bacilli in pigs, especially when the animal had been dead for some time. He thought that if the procedure were altered as Mr. Coleman suggested it would "save the face" of the veterinary surgeon. Even eminent authorities sometimes differed with regard to slides.

Mr. COLEMAN briefly replied to the discussion on his paper. He quite agreed, he said, with Mr. King's remarks as to the liability of milk being contaminated by cans left at infected houses. He was very glad that Mr. Male had brought to their notice the "Timothy grass" bacillus, which he had overlooked in the preparation of his paper. He agreed to alter the wording of his resolutions as suggested:—

(1) That the National Veterinary Association be asked to call the attention of the Board of Agriculture to the injustice now being done to the local veterinary practitioners under the Contagious Diseases (Animals) Act by their present procedure in cases of suspected anthrax, and to ask that some modification be made in the form of notification to Local Authorities and owners where the existence of the disease is not confirmed by the Board, so as to cast no reflection on the diagnosis of the Local Veterinary Inspector.

(2) That the National Veterinary Association be asked to take steps to bring to the notice of the proper authorities the urgent necessity of providing for a more adequate and competent inspection of the public meat supply, and in this connection to insist upon the inspection of all carcasses before the viscera has been detached.

Mr. KING proposed a hearty vote of thanks to Mr. Coleman for his very instructive and interesting paper; and also to Mr. Wyllie for his able and genial conduct in the chair.

The Hon. Sec. seconded the resolution with great pleasure, and added his personal thanks for all that Mr. Coleman had done to make the meeting a success, and it was passed by acclamation, and acknowledged.

Tea was afterwards taken at the hotel, on the kind invitation of Mr. Coleman.

#### Prosecution by the R.C.V.S. at Chelmsford.— Dismissed.

At Chelmsford on Friday, James Neville Marshall, described as a horse doctor, of Harlow, was summoned for "using and taking an addition and description, to wit, "Veterinary surgeon operator," thus stating that he was a practitioner of veterinary surgery, and not being on the register of veterinary surgeons."

Mr. G. R. Thatcher, of London, prosecuted at the instance of the Royal College of Veterinary Surgeons, and in opening the case said the defendant was the defendant in a civil action which was heard at the Essex Assizes at Chelmsford on February 7th. In the course of that action he was described as a "veterinary surgeon operator," and in giving evidence he called himself by the same term. In cross-examination he still stated that he was an English surgeon veterinary operator, but afterwards admitted that he was not a qualified man. The case concerned a horse, and the defendant gave evidence that he had a large practice all over the country, that he had a pupil, and, in fact, he gave evidence expected from an expert. Mr. Thatcher added these proceedings were taken under the Veterinary Surgeons Act, 1881, and the prosecution was initiated by the Royal College of Veterinary Surgeons.

Mr. Walter Glennie, managing clerk to the solicitor to the R.C.V.S., stated that he was in the Assize Court at Chelmsford on February 7th, and heard the defendant described as a veterinary surgeon operator, and state that he had a large practice all over the country. Witness produced the register of veterinary surgeons, and stated that the defendant was not on the register.

In reply to the Bench, witness admitted that in cross-examination at the Assizes the defendant stated that he was not qualified.

Defendant remarked that he was most emphatic on that point in giving evidence.

Defendant, in the witness-box, stated that at the Essex Assizes he was the defendant in a civil case, and obtained a moral victory. The case arose out of his shooting a horse, not as a veterinary surgeon but as a friend. The evidence called against him included Mr. Geo. H. Harris, a member of the Royal College of Veterinary Surgeons, and he (defendant) had been for four years with him as an unqualified assistant. When he (defendant) left Mr. Harris he started in opposition two miles away, and took away the bulk of his practice. But he had never applied the name of veterinary to his name in any shape or form, and his defence was that the prosecution could not produce any direct evidence that he had ever applied the name veterinary; and that was the gist of the Act. He had nothing to gain by calling himself veterinary, but everything to lose. He had been a success in his calling as a quack. Without being at all egotistical he could say that he had worked on some of

the largest studs in England, and had been called in as a second opinion after many of the men of the R.C.V.S. He denied that he had ever called himself a veterinary surgeon operator.

The Clerk (Mr. A. S. Duffield): How do you describe yourself?—I describe myself as practising in surgery, but having no English qualification. I was most emphatic in saying before Mr. Justice Pickford that I was not qualified.

Mr. Thatcher: Mr. Glennie took a note at the Assizes while you were giving evidence. Do you think he made it up?—Undoubtedly.

Why do you think he made it up?—Because I obtained a moral victory. This is the sequel.

Mr. Thatcher: This note was made while you were giving evidence. Supposing two reports of two separate papers both describe you as a veterinary surgeon operator, do you think both made it up?—Probably; it is rather hard to describe me.

Did you give evidence as an expert?—Not at all; I was sued.

Have you any pupils?—I refuse to answer; it has no bearing on the case.

Do you treat cows?—Sometimes.

Defendant added: Please understand that I am a quack. I am not a veterinary, and don't wish to be. I attend cases sometimes even after the members of your noble College.

The Mayor (Alderman George W. Taylor): You swear that you have never represented yourself as qualified?—I dare not do it.

The case was dismissed.

Subsequently Mr. Thatcher said that the Bench were not bound to give the grounds upon which they dismissed the case, but asked that he might be informed.

The Mayor said the Justices dismissed it on the facts of the whole evidence, and that was all he could say.—*East Anglian Daily Times.*

Commenting on the foregoing, *The East Anglian Daily News* says:—

"It is positively refreshing to encounter nowadays a practitioner of the healing art who prefers to be classed as a 'quack.' 'Please understand that I am a quack. I am not a veterinary, and don't wish to be,' said a defendant summoned before the Chelmsford Bench of Magistrates at the instance of the Royal College of Veterinary Surgeons for holding himself out as a qualified veterinary. In this case the defendant actually resents the insinuation that he is in any way connected with the College, and he seems to think that he can do better for himself by pursuing an unabashed system of quackery. Certainly the man does no harm to the College, and if the members of the public like to employ an unqualified man that is their own affair. This is a free country, and the patient who prefers a quack is entitled to have one—at his own wish. It is a little difficult to see what the Royal Veterinary College has to gain by these somewhat frequent prosecutions of men who are careful to explain that they hold no college qualifications. If people pretend that they hold degrees or diplomas from the College, that is another matter, because it is a fraud on the confiding public. But if a man disclaims all connection with the College and faculty of his assumed craft, then he has done all he can to show his *bona-fides* and his lack of scientific training. It almost looks as if the College was stirred up to set these prosecutions afoot by some local rivalries or jealousies in the background. Of course if there is any danger of the public or professional interests suffering it is the duty of the College to move, but it can hardly be the business of the College to prosecute 'quacks' who boast and openly advertise the fact that they have no connection with the College in any way."





### How should Horses Drink?—Stretford Council against Carriers.

At the Manchester Assizes on Thursday, May 1st, before Mr. Justice Rowlatt and a common jury, the Stretford District Council (for whom Mr. Acton appeared) sued Messrs. John Gorton, Limited, carriers, of Quay Street, Manchester, for whom Mr. Atkinson appeared.

The case for the plaintiffs, as put by Mr. Acton, was that the bolting of a horse, to which a heavy lorry was attached, at the junction of Chester Road and Stretford Road, Old Trafford, on Dec. 16 last year, and the consequent smashing of an electric feeder pillar—by which damage was done to the extent of £122—were due to the fact that the driver, on taking the horse up to a water trough, removed its bit.

Counsel contended that for a driver to remove the bit in a crowded and busy thoroughfare was an act of negligence from which serious consequences might be expected to result. Horses were accustomed to be restrained and controlled in traffic by the bit, and on its removal there was a natural tendency for it to bolt. In this case the horse shied and bolted. The driver held on to the horse's head as well as he could, but was flung away by the horse, which dashed on and collided with the pillar, the driver having then no means of controlling the animal. It was no doubt the easiest way to take the bit out, added the Counsel, but the proper way was to loosen the bearing rein.

Evidence bearing out the opening was given by a constable who saw the accident and by two veterinary surgeons, Mr. Ernest Stent and Mr. H. C. Harrison, who spoke on the general practice of carters under the conditions described.

Mr. Stent said that to take out the bit was a dangerous practice and might cause an accident.

Cross-examined, Mr. Stent said he did not think the leaving of the bit in the horse's mouth created a danger of the water going down the trachea into the lungs. To leave the bit in merely meant that the horse could take less water at a gulp.

Mr. Harrison said that to take out the bit of a heavy draught horse was quite inadvisable and not necessary. The discomfort caused to the animal by leaving the bit in the mouth was infinitesimal.

Superintendent Keys, of the County Constabulary, also expressed the opinion that bits should not be taken out of the mouths of horses whilst they were in busy thoroughfares. He had known accidents to occur time after time from this cause. Horses had wonderful memories, and if it had been a practice for a horse in its early days to run free, as soon as the bit was removed from its mouth, it would be inclined to do the same in later years when it felt the same freedom.

Similar views were expressed by other witnesses, including the horsekeeper to the Empress Brewery Company.

For the defendants, Mr. Atkinson claimed that it was the proper thing to remove the bit and only the lazy carters did not do so. It had been previously held that to do so was not negligence.

Thomas Dunn, the driver said he had a heavy load—60 bags of bran, each weighing 100lb.—at the time of the accident. In his view horses should never be expected to drink with the bits in their mouths, because under those conditions a great part of what they drank came back down their nostrils. He should say that 999 out of 1000 carters would take the bit out when they watered their horses.

Mr. G. H. Locke, veterinary surgeon, said it was inconvenient for a horse to drink with a bit in its mouth. There was also a risk of faulty swallowing. As to whether there was a danger in removing the bit

depended on the place and on the horse, but under ordinary conditions he should consider a carter to be lazy who did not remove the bit.

Mr. C. Taylor, another veterinary surgeon, said it was the undoubted practice of carters to remove the bit, and it was a proper practice in the case of quiet staid animals.

Mr. F. W. Cosgrove, veterinary surgeon, said a good carter would remove the bit whenever he safely could.

Mr. Charles Thorley, who has charge of 600 horses belonging to the Lancashire and Yorkshire Railway Company, expressed the view that a horse could not drink properly with the bit in its mouth.

Mr. John Crawford, team owners' secretary, said a carter who did not take the bit out was "a lazy beggar."

Mr. Alfred Hilton, secretary of the United Carters' Association, declared that it had always been the practice to remove bits when horses were watered, and it was a proper practice.

The jury gave a verdict for the defendants.—*The Manchester Evening News.*

### REVIEW.

A SYSTEM OF VETERINARY MEDICINE, BY VARIOUS WRITERS. Edited by E. WALLIS HOARE, F.R.C.V.S., Lecturer in Veterinary Hygiene, University College, Cork; late Examiner in Anatomy, Royal College of Veterinary Surgeons; late External Examiner in Veterinary Toxicology, Jurisprudence, and Sanitary Law, University of Liverpool; Author of "Veterinary Therapeutics and Pharmacology." Large 8 vo. pp. xvi. + 1327, no advs., cloth lettered. Vol. I. 21/- net. (Baillière, Tindall and Cox, 8, Henrietta Street, Covent Garden).

Of late years it has been the custom to publish complete handbooks of human medicine or surgery in the form of "systems" produced by many authors. In medicine and surgery alike, this practice has become a necessity—partly from the development of specialisation, and partly because medicine in particular is now so wide a subject that any writer attempting to cover its whole extent will be forced to deal with many conditions upon which he has no claim to all to speak with authority. This applies to veterinary as well as to human medicine, but veterinary writers have hitherto been slow to recognise the necessity for composite authorship. Mr. Hoare, in the present work, has done so very fully, and thereby broken ground in a commendable direction.

The volume before us is the first part of a two-volume system, and is devoted to microbial diseases—this of course including affections regarded as due to ultra-microscopic organisms, in addition to bacterial and protozoal ones. Five important subjects—viz. black quarter, white scour, swine fever, swine plague, and swine erysipelas—have been dealt with anonymously. The authorship of all the other very numerous articles is indicated, and twenty-five names altogether, most of them very well known ones, appear in the list of writers. The largest single share of the work, both as regards quantity of matter and number of subjects, has fallen to Mr. Henry Gray; and Mr. Hoare himself comes next in order. The shares of the other collaborators vary greatly, some only contributing one article—as Col. H. T. Pease on surra, Mr. H. Caulton Reeks on anthrax, and Mr. Hugh Begg on mammitis—while others contribute several. The work is thus simply a series of separate articles by various writers, covering the whole field of veterinary medicine in tropical as well as temperate climates. On the whole, excellent judgment has been shown in the apportionment of space and the selection of minor subjects for inclusion; though here we note one feature which affords room for diversity of

opinion. A great deal of space is allotted to diseases of various creatures not usually coming within the range of veterinary practice, and particularly those of birds and fishes. Some readers are certain to regard much and indeed most of this matter as out of place in a veterinary text book, and there is something to be said for such a view. On the other hand it may fairly be replied that almost every practitioner is liable at times to be asked about these conditions, that, while not bound to understand them, he may nevertheless find a knowledge of them very useful in such circumstances, and that no means of acquiring that knowledge have hitherto been afforded him by professional text books. These considerations seem to justify the inclusion of such subjects in the present volume, and certainly no compilation of information upon avian and piscine diseases even approaching this one has yet been generally available to veterinary surgeons.

The great bulk of the work, however, concerns subjects exclusively veterinary. We shall be better able to assess the value of the whole production when the second volume is available, but the present one justifies us in welcoming a valuable addition to our literature. No subject that ought to be included in it is omitted, and, without attempting detailed criticism of the work of individuals, we may fairly congratulate them collectively. The book will appeal to every man engaged in general practice of whatever nature, for the needs of those concerned with horses, ruminants and pigs, and dogs and cats are all equally met. It certainly marks a tremendous advance upon anything dealing with veterinary medicine that has yet been produced by English authors.

W. R. C.

#### NORTH MIDLAND VETERINARY ASSOCIATION.

The quarterly meeting of this newly-formed Veterinary Association was held at the "King's Head" Hotel, Sheffield, on April 29th. The following members of the profession being present:—Messrs. Joseph Abson, T. C. Fletcher, H. R. Laycock, H. P. Lewis, J. S. Lloyd, A. D. Morgan, S. Nixon, S. E. Sampson, Bruce Selous, H. Thompson, J. H. Yates, Sheffield; T. Bowett and W. Brown, Worksop; J. H. Gillespie, Doncaster; G. Green, Rotherham; W. Collinson, Anston; M. Robinson and C. S. Smith, Barnsley; E. G. Johnson, Beighton; F. L. Somerset, Chesterfield; G. J. Furness, Alfreton; H. Pollard, Wakefield; and R. Hudson, Retford.

An apology for inability to be present was received from Mr. W. Murgatroyd, Sheffield.

Mr. Joseph Abson, Sheffield, was voted to the chair, and Mr. J. S. Lloyd acted as Hon. Secretary *pro tem*.

Mr. LLOYD read the minutes of the Committee meeting held on Jan. 28th, for the purpose of drawing up rules for the conduct of the Association. Drafts of the suggested rules had been supplied to each member previous to the meeting, and after slight verbal alterations on the motion of Mr. Smith, seconded by Mr. Abson, these were unanimously adopted and ordered to be printed.

#### ELECTION OF OFFICERS.

*President*.—Mr. Somerset proposed Mr. Joseph Abson of Sheffield: this was seconded by Mr. Smith. Mr. T. C. Fletcher proposed as an amendment that Mr. Somerset be elected President, and this was seconded by Mr. Sampson.

Mr. ABSON stated that as he is president of the Yorkshire Veterinary Association, he wished that his name be withdrawn, and with the consent of his proposer and seconder, this was done. Mr. Somerset was then

unanimously elected President, and took the chair amidst applause.

*Vice-Presidents*.—The following were elected:—

Messrs. Abson, Johnson, and Robinson.

*Treasurer*.—Mr. H. Thompson was elected.

*Secretary*.—Mr. J. S. Lloyd was elected.

*Auditors*.—Messrs. Bowett and Collinson were elected.

*Council*.—This was composed of the above officials and Messrs. Fletcher, Green, Hudson, Lewis, Smith, and Yates.

Previous to the meeting being held, a cow with a tuberculous udder was exhibited to the members, on the premises of Mr. Joseph Abson, Norfolk Street, Sheffield, Mr. Lloyd having arranged with the owner of the cow for her to be inspected by the members of the Association present, previous to being slaughtered at the Killing Shambles, Sheffield. Mr. H. P. Lewis, Senior Assistant Veterinary Inspector for Sheffield made a microscopical examination of the milk from the cow's udder, demonstrating the procedure by which tubercle bacilli could be found in the milk. The milk after being collected was allowed to stand over for a few hours until sedimentation took place. Films from the sediment were stained by the Ziehl-Neelson method. Tubercle bacilli in considerable numbers were found to be present.

A discussion on the New Tuberculosis Order afterwards took place, the Articles of the Order being explained *seriatim* by Mr. Lloyd.

The President, Messrs. Abson, Brown, Bowett, Fletcher, Gillespie, Hudson, Johnson, Sampson, Robinson and Yates took part in the discussion.

The PRESIDENT nominated as a new member Mr. Thomas Ludlow of Mansfield, the nomination being seconded by Mr. Bowett.

A hearty vote of thanks to the President for his conduct in the chair, terminated a very successful meeting.

#### ELECTION ADDRESS.

#### To the Fellows and Members of the Royal College of Veterinary Surgeons.

Gentlemen,

I am again honoured by being nominated as a candidate for the forthcoming election of members of Council, and respectfully solicit the favour of your vote and influence.

For twelve years I have acted as one of your representatives and given myself unstintingly to the duties of office, and during that period have been unavoidably absent from three quarterly meetings only; so may claim to have kept in close touch with the work of the Council.

It is unfortunate that the congested state of Parliamentary business has prevented the Veterinary Surgeons' Amendment Bill being added to the Statute Book. This Bill has been approved by large majorities at four previous elections, and until it becomes law the progressive work of the Council will be most seriously hampered and retarded from lack of funds.

If re-elected, I shall give, as in the past, the necessary time to the duties devolving on me, and shall endeavour to serve and further the interests of the profession to the best of my ability.—Yours faithfully,

JOHN McKINNA.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever	
	Outbreaks		Animals		Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Animals	Outbreaks	Outbreaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended May 10	9		12				2	3	38	59	3	78	1797
Corresponding week in	1912	18	19				5	5	33	85	3	69	1088
	1911	15	43				2	4			1	55	809
	1910		31	44			5	14			3	86	459
Total for 19 weeks, 1913	251		272				65	210	1330	2746	115	836	11920
Corresponding period in	1912	424	475				65	141	1848	4152	159	1262	16055
	1911	375	464		1	18	78	225			294	863	9401
	1910		587	724			140	340			305	446	3943

† Counties affected, animals attacked: Durham 2, Hertford 1.

Board of Agriculture and Fisheries, May 13, 1913.

Period.							Outbreaks					
							2	13				
IRELAND. Week ended May 10	...	...	...	...	...	...	2	13	3	70		
Corresponding Week in	1912	...	...	...	...	...	3	4	8	114		
	1911	...	1	1	...	...	1	1	...	5		
	1910	...	...	...	...	...	1	12	2	12		
Total for 19 weeks, 1913	...	...	...	...	...	...	82	267	61	372		
Corresponding period in	1912	...	1	1	...	...	37	247	98	928		
	1911	...	5	5	...	...	38	238	47	912		
	1910	...	4	6	...	...	33	312	31	819		

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 13, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## The Tuberculosis Order.

## DEVON COUNTY COUNCIL.

A deputation from the Western Counties Veterinary Medical Association, consisting of Messrs. John Dunstan, Liskeard (chairman); P. G. Bond, Plymouth; G. Elder, Taunton; and W. P. Stableforth, Colyton, met the Contagious Diseases (Animals) Committee of the Devon County Council at The Castle, Exeter, on Wednesday the 14th inst. for the purpose of assisting them in making provision for carrying out the Tuberculosis Order (1913).

The Committee decided to accept the scale of fees proposed by the National Association of Veterinary Inspectors.

At a meeting of the Hunts County Council held in the Shire Hall, Huntingdon, May 9th, the following gentlemen were appointed Veterinary Inspectors in their respective districts:—Messrs. C. Burston, St. Neots; A. Johns, Kimbolton; Jos. Mackinder, Norman Cross; S. G. Masterman; Huntingdon; F. G. Reynolds, St. Ives; A. Ridlington, Ramsey.

A. RIDLINGTON, Hon. Sec.

## The Slaughter of Calves

In the House of Commons on Monday, May 5. Mr. C. BATHURST (Wilton, Opp.) asked the President of the Board of Agriculture whether he was aware that in the 16th century, owing to the excessive slaughter

of calves by so-called covetous persons, a statute, of Henry VIII. forbade the killing of all calves for three years between January 1 and May 1; and whether, in view of the same process being carried on in the 20th century in the supposed interests of milk-producers and causing a serious and alarming shortage of both store cattle and milch cows, the Government would consider the advisability of re-enacting the same statute.

Mr. RUNCIMAN (Dewsbury).—My attention has recently been called to the statute in question. Before giving a definite answer to the latter part of the question I should be glad to consider any evidence with which the hon. member may be able to furnish me showing what was the effect of the statute when it was in operation.

## ARMY VETERINARY SERVICE.

Captains G. P. Knott and F. Fail, Army Veterinary Corps, seconded for employment with the Egyptian Army, have been promoted to the rank of Kaimakam (Lieut.-Colonel) and appointed Assistant Directors in the Veterinary Department, Sudan Government.

Maj. F. Eassie arrived from India on 7th inst., having been granted three months leave of absence.

Maj. W. J. Tatam has been granted four months leave of absence from Egypt.



### The Late Duke of Westminster and Roaring. Interesting Letters.

Mr. Somerville Tattersall gives me permission to reproduce the following letters written by the late Duke of Westminster to the late Mr. George Fleming, the famous veterinary surgeon, President of the R.C.V.S., and Principal Veterinary Surgeon to the Army. Mr. Tattersall came across these letters in a bookseller's catalogue, and as several of them refer to the infirmity of the great Ormonde, they are of considerable interest. Ormonde went abroad in 1889. The Duke obtained £12,000 for him. He decided to sell him only after having a long discussion with his family, and he parted with him "with great regret." Ormonde returned to England in January, 1893, and remained at Goodwood till August the same year, when he went to California, where he died in 1902. Ossory, his own brother, made a noise in July, 1888, and Fleur de Lys, the sister, also the same year. She was then a two-year-old. Ossory was sold in the following December for 2000 guineas to go to the U.S.A., and died in a storm on the way out; while Fleur de Lys, sold about the same time, died during the journey to the Argentine. Star Ruby went to California in 1894, and Collar has been to the Cape and back. Labrador is in Belgium, so the relatives of Ornament have travelled a good many miles.

AUDAX.

Dear Dr. Fleming.—The account you were good enough to send me as to the excision of part of a horse's larynx is very interesting, and I should be very much obliged to you if you would kindly let me be informed if the "roaring" is thereby diminished after your experiments.—Believe me to be, yours very truly,

WESTMINSTER.

Eaton, Christmas Day (no date).

Dear Dr. Fleming.—The train leaves Waterloo at 9. I have asked Mr. Verrinder there to stop it at Overton (about 10.40). Porter will probably meet you on the Downs (*en route*), with Ormonde, and you can then see him in the stables, returning by a 2.49 train from Overton, due at Waterloo about 4. A fly will meet you at Overton.—Yours very truly,

WESTMINSTER.

Grosvenor House, Monday (no date).

Dear Dr. Fleming.—I wonder whether you could spare time to run down here to show us how to apply the Faradisation to a valuable hunter, five years old, just showing signs of affected wind? We could show you our Stud—Bend Or and his yearlings and foals, that are really worth seeing, and we would send to meet you at Chester and lodge you here. Could you come this week? Please wire.—Yours truly,

WESTMINSTER.

Eaton, April 3.

Dear Dr. Fleming.—The enclosed is, as you say, decidedly encouraging, and I only hope that we shall have the same tale to tell of Ormonde after a time, but I hear he makes a good deal of "noise." A thoroughbred mare called Bagpipes, a very bad roarer, was sent to St. Kitts in 1869. She ceased roaring after she had been in the Island a few months, and won some races. How can this be accounted for?—Yours truly,

WESTMINSTER.

I am sending a roarer, Newton, out there to try the experiment.

Eaton, April 5, 1887.

Dear Dr. Fleming.—I was down at Kingsclere on Monday last (I could not let you know previously), and though too wet to have the horses out, Porter assured me that Ormonde makes more "noise" than he did when

he ran last in July, and I have, therefore, to avoid any risk of defeat by younger and sounder horses next year, determined to put him out of training and send him soon to Eaton, where he will remain, for his first Stud season at all events. Therefore I should be glad if you could go down before that happens and satisfy yourself as to his present condition. Porter is away now at Liverpool, but returns, I fancy, on Friday, and will be away for a day or two at Derby next week; please, therefore, communicate with him as to the time when it may suit you to see him there. Will you also let me have your account, and believe me to be,—Yours very truly,

WESTMINSTER.

Grosvenor House, Nov. 8, 1887.

[*Note by Mr. Tattersall.*—The late Duke of Devonshire said to my father after the Imperial Cup, "I suppose we shall have him poisoning the country," so he and Ormonde's owner both seemed to object strongly to roaring.]

Dear Dr. Fleming.—I am obliged for your annual report, which you have been kind enough to send me, and am more than delighted to hear that you have been successful in your operation for cure of roaring, which, if generally successful, will be invaluable! I shall be very glad to be honoured by the dedication of your monograph on this very interesting subject. Ormonde has grown into a very fine horse at the Stud—shows hardly any sign of roaring when covering, which is usually the case, is very good tempered, and serves his mares well.—Believe me to be, yours very truly,

WESTMINSTER.

Grosvenor House, May 31, 1888.

Dear Dr. Fleming.—May I ask you to be kind enough to let me know how your treatment for roaring is progressing? I heard that the two artillery horses on which you first operated did not yield to it, but that you had been successful with a good many since that time. Ormonde has been troubled with a very nasty cold, and he has a cough since some time. He goes to Lord Gerard's at Newmarket shortly, and after this I have sold him to the Argentines so as not to further propagate the disease, of which we have too much everywhere. There is a lovely own sister to him, a two-year-old, from which we expect great things. As a yearling I might have sold her for 5,000!—Believe me to be, yours very truly,

WESTMINSTER.

Grosvenor House, Wednesday evening (1889).

[*Note by Mr. Tattersall.*—This filly was Ornament, dam of Sceptre, the record-price yearling (10,000 guineas), and it was not till 1890 that La Fleche was sold for 5,500 guineas, then the record price for a yearling.]

Dear Dr. Fleming.—I am obliged for your report of Haymaker, and hope that he may do well. He can't gallop across a field without a great amount of "roaring," which affects him in his canter and trot. I am sorry to say that poor Ormonde is gone to pieces, and cannot get his mares in foal. I have two splendid foals by him.—Yours very truly,

WESTMINSTER.

Grosvenor House, May 14, 1889.

[*Note by Mr. Tattersall.*—The foals were Orme and Orville.]

Dear Dr. Fleming.—I must write and give you an account of the horse you were good enough to operate upon last spring for "roaring." I turned him out at grass in the summer, and had him up late, began to ride him about ten days ago. He makes very little noise, but has a cough of no severe character, and on Monday last, Dec. 30, I rode him with hounds; we had a gallop of fifteen minutes, with jumping, and he went as well



as ever, and I could not hear any noise, nor did he cough except while riding home, and he jumped and galloped freely and well, so that in his case the operation must be considered as decidedly successful. Last year at this time he made so much noise that it was quite disagreeable to canter him over a field, and he would have been useless now. Thanks to your treatment I have now a good *restored* horse, which is a great thing for me, as he is the pleasantest riding horse and hunter I ever possessed. I heard that a good many of the troopers you treated were not cured, but were not some of them tried rather soon after the operation?—Believe me to be, yours very truly,

WESTMINSTER.

May I offer you all good wishes for the New Year? I believe this horse was dangerously ill after the operation, but not from it.

Eaton, Jan. 1, 1890.

Horse and Hound.

#### Abortion in Cows.

At the council meeting of the Royal Agricultural Society, Lord Northbrook, in presenting a report from the Veterinary Committee, called attention to an offer of the Royal Veterinary College to assist members of the society in cases of outbreaks of abortion.

Sir John M'Fadyean had informed the committee that as the result of experiments which had been carried out during the past few years the presence of contagious abortion in cattle could be discovered by testing the blood of the animal, and that in his opinion this test was completely reliable. What the Royal Veterinary College were offering to members of the society was this: When a case of abortion occurred in cattle the member might give notice to the college, who would carry out a test of the blood. If that test showed that the animal was infected with contagious abortion the college would test the blood of the other animals on the farm to discover how many of those were infected, and would then advise the owner as to the method in which the animals should be dealt with and the best steps that should be taken for freeing the herd from disease. This the college were prepared to do for members free of cost, and to treat as many cases as possible. The only expense to the owner would be the cost of taking a sample of blood and sending that sample to the college. Sir John M'Fadyean wished to make two conditions—one, that the sample of blood should be taken and transmitted to the college by a qualified veterinary surgeon, and the other, that the owner should, so far as he was able, carry out the advice given him by the college. Of course all communications would be treated as confidential. Full particulars would be sent to all members of the society in due course.—*The Times*.

#### The Cinematograph in Physiology.

Some remarkable cinematograph films were shown at the Royal Institution, Albemarle Street, W., last month, during a lecture by Professor W. Stirling, of Manchester, on the subject of "Motion and Locomotion."

By means of what is called the "slowing-down" process, the opening of flower buds, the actual movements of a man walking, running, and jumping could be carefully studied, while the beautiful sweep of the long wings of a white pigeon while flying could be followed in every detail. The beating of the heart of a dog and the inflation and deflation of the lungs on each side formed a wonderful picture.

Sterilised embryonic tissues of a frog or chicken, such as a part of the heart, the spleen, or the spinal cord, could be grown in a culture media, he said, for something like fifty days. By the speeding up of the

cinematograph pictures 300 times they could watch the growth of these tissues. A piece of chicken's spleen shown on the screen at this speed had almost the appearance of a large cluster of bees in continual movement, while the fibres could be watched growing out of a piece of chicken's heart.

The concluding picture was a combination of the Röntgen rays and the cinematograph, by means of which all the inner movements of the hand could be watched. Professor Stirling added that by the combination of the X-rays and the cinematograph the problem and question of movement had been put upon a new basis, and a new vista had been opened up.—*The Daily Telegraph*.

#### "Sweet Lavender."

Dear Sir,

May I crave a small space in *The Veterinary Record* to express my grateful thanks to all those members of the profession who so kindly responded to my appeal on behalf of the Victoria Veterinary Benevolent Fund. I enclose a short balance sheet which shows a profit of £69 14s. 10d., but in order that the Secretary of the Fund shall not be bothered with odd amounts I have sent him a cheque for £70.

May I also thank you, sir, for your kindness in so freely advertising "Sweet Lavender" without charge. —I am, sir, yours faithfully,

PERCY J. SIMPSON, F.R.C.V.S.

Maidenhead, May 13.

<i>Receipts.</i> By Donations		£24 12 0
Sale of tickets "Sweet Lavender"		74 14 6
Sale programmes, chocolates, etc.		10 5 8
		109 12 2
<i>Expenditure</i>		39 17 4
Balance being total profit		£69 14 10

#### Personal.

JAMES.—On April 9th, at Vernon Jubilee Hospital to the wife of W. H. James, M.R.C.V.S., a son.

#### OBITUARY

DANIEL ELMER RATTEE, M.R.C.V.S., Funderhall, Norwich Graduated, Lond: Dec., 1855.

Mr. Rattee's death occurred on May 1st, at Funderhall, from malignant stricture of œsophagus, two years. Aged 81 years.

WILLIAM CASTLEDINE, V.S., Writtle, Chelmsford, died on May 10th from heart failure, at the age of 73 years.

JAMES.—At Vernon Jubilee Hospital, on April 18th, Edith, beloved wife of W. H. James, M.R.C.V.S.

A very sad and sudden death occurred on Friday evening at the Vernon Jubilee Hospital Maternity Home. About ten days previous a son had been born to Mrs W. H. James, the wife of the well-known veterinary surgeon of this city. Mrs. James was in good health and spirits on the night of her death, but succumbed instantly to heart failure, caused by a clot of blood in the circulation getting to the heart. She leaves a husband and three children to mourn her loss, and the deepest sympathy goes out to them in their terribly sudden and distressing affliction.—*The Vernon News* (British Columbia).

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.

# THE VETERINARY RECORD

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VOL. XXV.

## THE ANNUAL REPORT AND COUNCIL ELECTION.

The Annual Report and the voting papers are now once more in our hands. The Council election promises to be a very unexciting one. There are nine vacancies, the ninth having been created by the death of Mr. Richard Roberts. All the eight retiring members of Council, viz., Messrs. Carter, McI. McCall, McKinna, Mulvey, Price, Shipley, Slocock, and Prof. Shave—are offering themselves for re-election. On the other hand, only three new candidates—Messrs. Crowhurst, Packman, and Prof. Goffton—are coming forward. The old members, of course, can be judged by their records; and the most likely event is that all will retain their seats. Such interest as lies in the election, therefore, centres round the filling of the ninth place. Members must make their choice according to their general estimate of the candidates' fitness for office—there is no special test question before the profession, except, of course, that no candidate should receive a vote unless he is a supporter of our pending Bill. The great majority of the candidates have not yet issued election addresses, but we fancy that all support the Bill, as we know that most do. Taking it for granted that all support it, as we think we safely may do, the election resolves itself into a question of the general fitness of the candidates for the work of the Council.

The Annual Report should provide ample material for discussion at the general meeting. The financial statement, of course, is worse than ever before—our expenditure has exceeded our income by £465. Not much can be said about it—nothing can check our downward progress except the passage of the Bill, and we know that the Council are doing all they can to effect that. But there are many other points in the Report, chiefly educational and Parliamentary ones, which might profitably be discussed. For instance, one noteworthy feature in the Report is its definite promise that next year's Register shall contain "the new regulations for the Fellowship Degree, and for the Diploma in Veterinary State Medicine." However, far these matters may have been dealt with in Committee—one of them, in fact, has already passed its Committee stage—neither has yet been decided by the Council. Evidently the intention is to decide them very soon; and this meeting may be our last chance of offering suggestions upon them, before they are finally settled.

Lastly, there will be the dinner in the evening, which all should attend who can. An unofficial function, it yet has ample official support; for the President will be in the chair, and the Treasurer is taking an active part in its organisation.

## PURULENT CATARRH OF FRONTAL AND MAXILLARY SINUSES IN A HORSE THROUGH THE INTRODUCTION OF FOOD.

In a Prussian annual official veterinary report, the following rare case is recorded. A horse showed unilateral nasal discharge, bulging of the frontal sinuses, swelling of the submaxillary lymphatic glands, and emaciation. The animal was slaughtered; and post-mortem a gap filled with chewed masses of food was found between the first and second left upper molars. The left superior maxillary sinus and both frontal sinuses were blocked up with similar masses. The septum between the two frontal sinuses no longer existed. The mucous membrane of the frontal sinuses was inflamed, and showed a deposit of pus about a millimetre in thickness.—(*Berliner Tier. Woch.*)

## INTESTINAL OCCLUSION IN CATTLE AND ITS DIAGNOSIS.

Bru has published (*Revue Vétérinaire*) an article upon this subject. The causes of intestinal occlusion in cattle are generally either invagination, volvulus, or *internal hernia*, the latter term signifying a strangulation of a portion of intestine in a rupture of the mesentery or of the epiploon. The condition manifests itself by a series of symptoms which should be studied in their evolution from day to day.

The symptoms seen on the first day are colic, complete anorexia, almost complete absence of defecation, and very rapid action of the heart. On the second day the colic persists, the constipation is absolute, and the anorexia is always complete. The pulse is smaller and is sometimes even more accelerated than on the first day. Augmentation of the volume of the abdomen is almost always present.

When rectal exploration is undertaken, it is first found that the rectum is empty. When the arm is introduced as deeply as possible, a tumefaction, which is constituted by the invagination of volvulus, is encountered. This tumefaction is mobile in all directions, and has no adhesion to the abdominal walls. In the case of invagination it presents a certain consistence, while in the case of volvulus it conveys a sensation of elasticity, which is due to the gas it encloses. The tumefaction is only slightly sensitive, but its volume and its situation are variable.

The animals do not die much before the sixth or seventh day, unless, as happens in certain cases of intestinal strangulation, there is a rupture of a coil of intestine.

When they survive to the third day they often show an apparent abatement in the acuteness of the symptoms, which is due to the necrosis of the compressed portion of intestine. This seeming improvement ought not to mislead the practitioner, for the beats of the heart are always increased, which is an essential symptom.

The affection may be confused with acute enteritis, intestinal indigestion, or urethral calculi. Rectal exploration alone enables a decided diagnosis to be made.—(*Annales de Méd. Vét.*)

**"DUNG-BALL" IN THE HORSE AFTER THE  
INGESTION OF COAL TAR.**

Léoret and Perrean report (*Journal de Méd. Vét. et de Zoot. de Lyon*) the case of a ten-year-old horse which, after suffering from colicky symptoms for some days, was brought to the hospital of the Lyons School. Amongst other symptoms which had been shown were lying down cautiously, lying stretched out upon the side, lying upon the back, and rolling. The veterinary surgeon in attendance had given an injection of pilocarpine, and had ordered castor oil, clysters, etc.; but no improvement had been produced—rather the reverse.

When examined by the authors, the animal held his head low, seemed indifferent to his surroundings, and held the four limbs close together under the body. From time to time he turned the head towards the flank, attempted to lie down, and could only be induced to remain standing by threats. The nostrils were dilated, the mucous membranes were congested and dark red in colour, and the ears were cold and held almost horizontally.

The abdomen was considerably distended, and auscultation of it revealed no intestinal sounds. The abdomen was sensitive neither to pressure nor to percussion.

The pulse was frequent, small, and rapid; the heart was beating violently; and the temperature 102.2° F.

From time to time efforts to defecate were shown, but were without result.

The symptoms indicated an intestinal occlusion, but its nature could not be diagnosed. The animal died a few hours after entering the hospital.

Post-mortem, the intestine was found distended with gas and putrefying faecal material. A large "dung-ball" was found obstructing the floating colon about two feet from the large colon. In this region the intestinal wall showed some ulcerations, and a local peritonitis had commenced.

The aspect and structure of the dung ball were remarkable. Its external form was that of a triangular pyramid with rounded angles. Its height was four inches; its diameter at the base was six inches; and its weight was roughly about 1lb 2½oz. Externally, it seemed to be constituted on three of its faces by a yellow material of velvety aspect and faecal odour. Its base was constituted by a brown, dry, hard, brittle material resembling carpenter's glue.

Upon section, the structure was not homogenous, but was made up of several concentric layers. In

the centre was a black nucleus of doughy consistence, which, when analysed, was found to be composed of coal tar. This nucleus was surrounded by a layer of yellow faecal material. Then came another black layer of tar, which was continuous with the desiccated substance forming the base of the pyramid. Finally, at the exterior, was found the yellow material already described.

The history furnished by the owner explained the strange structure of this "dung ball." A quantity of tar had been in the stable within reach of the horse, and the animal had repeatedly ingested some of it.—(*Annales de Méd. Vét.*)

[So far as I know, this is the first time that the ingestion of coal tar has been reported as causing intestinal trouble in the horse. One would suppose that few horses would ingest it.—TRANSL.]

W. R. C.

**Royal College of  
Veterinary Surgeons.**

**FELLOWSHIP DEGREE.**

A meeting of the Board of Examiners for the Fellowship Degree was held at the College, 10 Red Lion Square, W.C., on Saturday, May 17th. The following is a list of the successful candidates together with the titles of their respective theses:

ALEXANDER CRABB,	"The Veterinary Surgeon and his relation to the Refrigerated Meat Supply."
WM. LANCELOT LITTLE,	"Periodontal Disease of Horses."
J. R. HODGKINS,	"Rinderpest in India."
W. ASHE KING,	"Foot-and-Mouth Disease."

The Examiners were Mr. W. Hunting, Prof. J. Macqueen, and Mr. J. Malcolm; Mr. W. J. Mulvey in the chair.

FRED. BULLOCK, Secretary.

**CENTRAL VETERINARY SOCIETY.**

An ordinary meeting was held at the Royal College of Veterinary Surgeons, 10 Red Lion Square, W.C., on Thursday, May 1st, Mr. J. W. McIntosh, President, in the chair. The following Fellows signed the attendance book:—Messrs. J. Willett, S. H. Slocock, N. Almond, R. J. Foreman, A. Crabb, W. R. Davis, G. Gordon, Prof. J. Macqueen, A. Neish, F. W. Chamberlain, R. Bryden, R. Eaglesham, L. Auchterlone, F. W. Willett, G. H. Broad, H. D. Jones, Wm. Hunting, G. H. Livesey, W. R. Clarke, E. L. Stroud, F. J. Taylor, Prof. G. H. Wooldridge, Prof. E. B. Reynolds, G. Sutton, W. S. King, W. Willis, and Hugh A. MacCormack, Hon. Sec. Visitor: Mr. A. N. Nicholas.

The minutes of the last meeting having been published, were approved and signed, on the proposition of Mr. Almond, seconded by Mr. F. W. Willett.

**CORRESPONDENCE.**

The Hon. Sec. (Mr. Hugh A. MacCormack) announced that a telegram had been received from Mr. Coleman (Swindon) regretting inability to be present. A pamphlet had been received from Dr. J. D. E.

Holmes, M.A., D.Sc., M.R.C.V.S.—“Bulletin: A note on some interesting results following the internal administration of arsenic in canker and other diseases of the foot in horses,” who had sent similar journals at the last meeting.

The Secretary, on the motion of the President, was instructed to acknowledge the receipt of the “Bulletin,” and thank Dr. Holmes for forwarding it.

A letter had been received from Mr. Ainsworth Wilson resigning his Fellowship of the Society, he being now in Scotland.

The President remarked that last year Mr. Wilson sent in his resignation, but was persuaded to withdraw. As Mr. Wilson was now in Edinburgh and could not attend the meetings, the Society could not but accept his resignation with great regret.

This was agreed to, on the motion of Mr. Foreman, seconded by Mr. F. W. Willett.

#### NOMINATIONS.

Mr. H. J. PARKIN, M.R.C.V.S., Barking Road, East Ham, E.; and Mr. J. CAHILL, M.R.C.V.S., 103 Stockwell Road, Stockwell, were nominated, and will come up for election at the next meeting.

#### THE R. S. I. CONGRESS.

On the motion of Mr. J. Willett, seconded by Prof. Wooldridge, it was agreed to send a delegate to the Royal Sanitary Institute Congress (Exeter) in July.

Mr. J. WILLETT moved, and Mr. Slocock seconded, the nomination of the President as delegate.

The President said they ought to nominate somebody else, as his business took him frequently away from home. However, he would be pleased to go, provided they left it to his discretion to nominate a substitute if unable to attend the Congress personally.—This was agreed to.

#### SPECIMENS.

Mr. A. NEISH submitted for inspection a portion of the broken spine of hunting mare. As she had gone lame on both fore feet for some considerable time, he had been called in to see her, and formed the opinion that she was suffering from navicular disease. Several veterinary surgeons had seen her some time previously; she would go sound for two days, and then go lame again. On his advice the owner had her unnerved, with the result that when the hobbles were loosed after the operation was finished she could not get up. He turned her over with the same result; she could not get up from from one side or other, and it looked as if she were paralysed behind. He put her in slings and pulled her up, but she knuckled over. Mr. Neish did not know the history of the mare, but he ascertained from the groom that two years previously she had been accidentally cast in the stall, before the present owner had bought her, and injured her spine, and she had been in slings for a month or six weeks. The mare was slaughtered and sent to Harrison and Barber's, and the post-mortem showed that the back was broken, yet there was no indication of disease of the spine.

In reply to the President, Mr. Neish said the age of the mare was 12 years.

Mr. ALMOND wanted to know whether the foot lameness had been verified by the post-mortem.

Mr. NEISH replied in the negative, stating that he was too busy at the time to prolong the post-mortem regarding the feet.

Mr. LIVESLEY mentioned the case of a small Pekingese dog, six years old, which had always had a rather peculiar, lumpy throat. About three weeks ago he was called because of a big swelling in the dog's throat. He came to the conclusion that it was an enlargement of the left side of the thyroid gland. As he did not think much

harm could come from that, he reassured the owner, advising iodine liniment if he wanted something applied. He thought in time the thyroid would regain its normal size and that the dog at any rate would suffer no inconvenience. A week later he again saw the dog, and was surprised to find that the original swelling, which was just above the thorax, had mounted up the neck to one side of the larynx. He found an opening in the skin, just large enough to admit a very small probe, about the size of a pin head, and out of it there exuded a very thin, clear discharge; no pus was present. A microscopical examination failed to reveal any pus organisms, it appeared to be a slightly yellow fluid of a serous nature, and it was colloidal. It seemed to him to come from the thyroid gland, but he gave a very guarded opinion until he was able to probe it properly. The next day he pressed the probe in to a depth of 1½ inches, and satisfied himself that it did not communicate with the œsophagus; there was no smell, and nothing to lead one to suspect the presence of a foreign body working out of the œsophagus. He had been watching it for ten days, and the flesh would not heal up, but the swelling had disappeared, and there was undoubtedly a sinus, which did not discharge pus, but clear, somewhat colloidal matter. He did not know whether any of them had had a case of a cyst forming in the thyroid and discharging externally. The dog ate well, and seemed in perfect health; there were no general symptoms beyond a slight disinclination to feed off the ground, i.e., to bring his chin close to his chest, or to lower his head.

He would like to know what they considered the best mode of treatment should be. He was very loth to interfere with the thyroid under any circumstances.

Mr. F. W. CHAMBERLAIN said he had a similar case some two years ago. A fox-terrier was brought to him with a sinus in the throat. It had previously been treated for about three weeks by iodine injection, but no improvement noted. He advised operation, despite the fact that the passing of a probe revealed no foreign body. The dog was chloroformed, a grooved-director passed, and the sinus slit up. To his surprise he then found another sinus almost at right angles and extending to the region of the jugulars. This sinus he treated similarly, and he extracted a small pointed piece of cane that must have worked its way through the œsophagus. The case made an uninterrupted recovery. He would operate in Mr. Livesey's case. There might be a foreign body despite its not being revealed by the probe. In his case too the discharge did not appear purulent, but glairy. He considered Hydrogen Peroxide an infallible test for pus.

Prof. WOOLDRIDGE said the case corresponded very closely with some cases he had seen, not involving the neck, but other parts of the body, which turned out to be fistula proceeding from the lymphatic gland. He had at that moment a case where a similar condition existed in the groin, with a thin, glairy discharge, non-purulent. The only treatment so far that he had been able to adopt with success was on the lines suggested by Mr. Chamberlain, viz., to open the thing right up, cauterise to its depth, and get healing granulation. He had not met with such a case as Mr. Livesey had described, involving the thyroid.

Prof. MACQUEEN said such a condition as Mr. Livesey had described was not uncommon in certain dogs, particularly bulldogs. He had no experience of it in Pekingeses, but he had frequently had cases in bulldogs. Though the swelling did not always break, discharge, or form a sinus, there was often a swelling which remained for a considerable time, and which if opened would yield a peculiar glairy material, like a thin jelly; the swelling sometimes suppurated and sometimes disappeared spontaneously or after being dressed with tincture of iodine. He had no suspicion that the





case mentioned by Mr. Livesey communicated with the substance of the thyroid gland, and he thought it would be found if a dissection were made of the part that it was only an ordinary throat cyst. It might be advisable to lay it open and mop out the interior with some antiseptic, preferably a weak solution of iodine; it might then close, but closure would not be obtained by working through a small outlet. The last case he had belonged to a subscriber who took a great interest in dogs and was inclined to dabble in bacteriology and the allied sciences; he was averse to any operation, and contented himself with external applications. He succeeded in reducing the swelling, but it returned at periods. In such a case as Mr. Livesey's, the only remedy he could suggest was to make an incision the full length of the swelling and dissect out the cyst.

ECZEMA IN THE DOG, by F. W. CHAMBERLAIN, M.R.C.V.S.

[This was printed in our issue of May 10, p. 720.]

#### DISCUSSION.

Prof. WOOLDRIDGE said he wished to thank Mr. Chamberlain for his paper, and for treating the subject in the way he had. It certainly afforded plenty of material for discussion. There were points in it on which they could all express some little difference of opinion. He was strongly of opinion that the main causes of eczema were (1) improper diet, and (2) imperfect excretions. There were certainly skin lesions absolutely indistinguishable from eczema due to these causes. It thus necessarily followed that he was in disagreement with Mr. Chamberlain in one important particular. He gathered that Mr. Chamberlain strongly favoured the view that eczema was contagious, and due to a micro-organism: In cases where the eczema was proved to be definitely contagious, in his opinion it was not eczema at all, but another skin disease—a contagious dermatitis. Another cause of skin irritation frequently met with was due to soap, not so much the kind of soap, but the fact that the soap was not properly rinsed off. He had come across such cases frequently; he had always insisted upon rinsing after soap, and the condition had not recurred. With regard to eczema of the pad, it seemed to him a paradox that Mr. Chamberlain should suggest tar paving as one of the causes, and yet advise the use of tar in its treatment. It might be that the tar in the paving blocked up the sweat ducts and got plastered in between the claws in the paws under the pad, and thus caused irritation. He did not consider there was any connection between eczema and interdigital cysts. One frequently came across interdigital cysts in the dog without the ordinary symptoms of eczema. As to treatment of eczema, he was again in disagreement with Mr. Chamberlain, mainly arising, he presumed, from their previous differences of opinion. Mr. Chamberlain favoured external applications, but he (Prof. Wooldridge) thought internal applications and attention to diet and excretions of greater importance.

Mr. CHAMBERLAIN interposed with the remark that he was only referring to medicaments when he said that.

Prof. WOOLDRIDGE, continuing, said he agreed with the view that a flesh diet was by far the best. His own dog had been subject to eczema, but since changing to a flesh diet the trouble had ceased. The condition of the ear that Mr. Chamberlain referred to, where there was hypertrophy of the papillae causing chronic eczema of the auditory meatus, never suggested itself to him as eczema at all; it was not due to the same cause. As to opium internally in treating cases, he himself had not used it; he should certainly try it in future in some cases, but it occurred to him that opium was an agent that diminished all secretions except those of the skin, and where the skin was already excessively active, as in moist or weep-

ing eczema, he did not think it would be advisable. He would use bromide in preference to opium as a sedative for that condition.

Although he did not attach so much importance to local applications as to a suitable diet, or to stimulating the general excretions, various applications could be employed with advantage. The main thing was not to use too potent applications. Far more damage was done, he thought, and far greater irritation produced by those applications than relief given in cases of eczema. The simpler and weaker the dressing, the better results he had been able to get. One had to give something, otherwise the client would not be satisfied. Amongst other applications he had used with varying success—either as the result of it or in spite of it—had been a combination of Chinosol and sub-acetate of lead, with or without glycerine and water; in cases where there was much moisture omitting the glycerine, and including it where the skin was in a dry and scaly condition. Another combination he had used was carbonate of zinc, solutio picis carbonis, glycerine and liquor-calci, again omitting the glycerine if the skin was moist. Internally he used smart purgatives of calomel, and followed with sulphate of magnesia, or iodide of iron, or Donovan's solution.

Mr. ALMOND said the subject was an interesting one, and one with which in practice they were all no doubt familiar. He was not sure that he agreed with Mr. Chamberlain's definition of eczema. In the medical world, he believed, the received definition of eczema was a vesicular eruption, non-contagious, and not attended with fever. In olden times all, or nearly all eruptions of the skin were attributed to certain humours of the body, but with advancing knowledge such a comprehensive view had been gradually reduced. One matter that Professor Wooldridge had referred to reminded him of something that the great John Hunter had said with regard to diseases of the skin—that he did not know whether it was right to apply anything to the skin at all, but if one did not know the cause it was better to apply nothing. Usually better results were obtained in that way than by the applications used at that time, when often energetic treatment was adopted with imperfect results. Personally he regarded ordinary eczema as due to infection, he thought it was often caused by the animal scratching itself owing to fleas or other irritation, and so infecting the skin. Such cases usually responded to very simple treatment. His stock remedy for all ordinary forms of eczema consisted of olive oil and ordinary paraffin with creosote, and it was generally successful. The paraffin had a drying influence. This was applied once a day, and if necessary, when there was any dirt or accumulation on the surface of the skin; at other periods of the day he had it dusted with boracic acid from an ordinary pepper-box. Nine cases out of ten yielded to that treatment without any trouble. There was a form of acute eczema frequently met with in the summer time associated with vesicular eruption a certain amount of purulent discharge on the surface of the skin, and extreme tenderness. He treated that in the same way with paraffin and oil, and very successfully. The hair invariably came out. If the parts were clipped just round the edges, and the treatment applied from the edges towards the centre, after cleaning if necessary, the next day the irritation would be considerably less and the parts very much dryer. From that time, if the animal was kept clean, there would be a regular progress towards recovery. Pain and irritation, in his opinion, were not so much due to the eczema itself as to the decomposition of the discharges, which acted as an irritant. It was important to remove that before applying the remedy which he suggested. There was a form of eczema affecting the scrotum of the dog which it was extremely difficult to get rid of, unless of

There are several official tables published dealing with the supply of horses. They have to be read with care; some of the most important only deal with remounts supplied by the War Office, and take no notice of the horses actually in possession of the troops on mobilization; nor do they include the horses of the Colonial contingents, nor part of those supplied to the Yeomanry. Only two of the official tables correspond in expressing the information on the January to December basis, and these do not agree in totals. Other tables adopt the official year 1st April to 31st March, others the financial year 1st October to 30th September, so that a comparison between them is rendered impossible. It will be well to identify the existing tables.

The earliest information is contained in Parliamentary Paper Cd. 963, 1902.\* It gives the number of animals obtained in South Africa before and after the declaration of hostilities up to June, 1900, also the number accompanying the troops, and the oversea remounts. The various classes, draught, cavalry, cobs and mules, are shown month by month, but the table is six months short of the year, and is therefore too limited for general purposes. In the same Parliamentary Paper is a table showing the number of horses and mules shipped as remounts only, and the loss at sea. This information covers the period 1899-1901.

Under the instructions of the Secretary of State, a paper was prepared on 31st January, 1902, showing month by month for the years 1900 and 1901 the number of horses sent with the troops from home, India, or accompanying Colonial contingents, and the number of remounts (horses only) from abroad sent to South Africa. This paper presented to Parliament bears the number Cd. 884.

In August, 1902, a Parliamentary Blue Book dealing with the Court of Enquiry into the Administration of the Remount Department was published. This contains a large amount of information on the supply of horses, from figures furnished by the Inspector General of Remounts. The supply of horses and mules is given month by month in Appendix B from October, 1899, to January, 1902, arranged on the January to December basis. It does not deal with the first supply of horses to the Yeomanry, nor with those accompanying troops, regular or oversea Colonials, nor with remounts obtained in South Africa.

In July, 1903, the Parliamentary Blue Book containing the Report of the Royal Commission on the War in South Africa was published. The supply of horses is dealt with in two Appendices. Appendix 33, Table 14, p. 233, shows the number of horses and mules sent to South Africa during the period October, 1899, to June, 1902, both with the troops, from Home, India, and the Colonies, and as remounts. The period selected for expressing the facts is from 1st October to 30th September. No

reference occurs in this table to remounts obtained in South Africa.

In the same report, a table, Appendix 38, p. 258, shows the number of all animals procured from every source for the period 1899-1902. It includes those accompanying units, Regular, Yeomanry and Colonial, also the number of remounts purchased in each country, and the numbers lost at sea. This information covers *en bloc* the whole period of the war, and by showing the total number of animals supplied from every source, and the numbers remaining alive on 31st May, 1902, or landed after that date, we are placed in possession of the essential facts of the total number of animals purchased which from all causes disappeared. From these data we can calculate the horse and mule loss for the two-and-a-half years of the campaign. It does not show how this loss is divided by periods, *i.e.*, whether the loss was greater in some years than in others, but it tells us the essential fact of the percentage of horses and mules which disappeared during the whole period of the campaign. It is marred by one fault only, it includes the deaths and destructions occurring in the countries of purchase: as to what this total amounts to we have no exact knowledge, so that this loss cannot be deducted from that occurring in Africa. It would naturally be a much lower death rate than that at the seat of war. Though the effect of having to combine the two death rates will vitiate the figures for South Africa by rendering them a little too low, we have determined, nevertheless, in the absence of anything more reliable, to use these figures as a basis for all future calculations. We have not, however, included in the losses at the seat of war those occurring on the sea, or animals in England, Canada and New Zealand that were purchased but still there at the time peace was proclaimed.

Subject to the above provisions, the general horse losses for the entire war amounted to 66·8872%, the mule losses 35·3751%. These percentages form the basis of our estimate of the total numbers of animals which disappeared year by year.

A further Appendix, 38A, p. 259, shows the number of horses and mules purchased as remounts from Oct., 1899-June, 1902. The information is based on the official year, 1st April to 31st March, and is given for each country. It does not include the horses accompanying the troops, nor the first lot obtained for Yeomanry, but does include those purchased in South Africa.

Summarising these facts, there are official tables arranged on the ordinary January to December basis, others on 1st April to 31st March basis, and again, others on 1st October to 30th September basis. Some deal with troops from all sources and remounts, some with remounts only. It has been a matter of the utmost difficulty to extract the essential facts from a veritable wealth of material, mainly for the reason that no definite thread of statistical expression runs through the somewhat tangled skein.

\* Army (Remounts) Reports, Statistical Tables, etc., South Africa.



The Report written by the Remount Department after the war has, unfortunately, never been published. It is a most interesting document. In it are statistical tables of income and expenditure of horses, but all these labour under the great disadvantage of unaccountable deficiencies, amounting to as much as 30,000 animals in a year!

It must further be remembered that all the official returns of oversea remounts and horses embarking with troops is based on the numbers actually placed on board, so that a deduction for those lost at sea must be made. Fortunately those numbers are known with accuracy. Another point to bear in mind in connection with the numbers from January to December is that remounts purchased in December would not be in South Africa until January, so that in estimating annual increments, those on the sea on 31st December have to be excluded.

Under no circumstances can the tables now to be presented, or those to follow for subsequent years, be accepted as rigidly exact: they are a very close approximation to the truth of the number of animals brought into the country at each period, but where losses for a definite period are concerned they are probably somewhat wide of the truth, for the reason that these have had to be computed. On the other hand, the total loss of purchased animals for the entire period of the campaign, a subject not at present being considered, is very close to the truth.

Before looking at the tables it will be interesting to learn the percentage of total loss, i.e., both dead and temporary expected by the War Office.\* It is given in *C. of E. Rem.*, Q. 4642, p. 151. The Quartermaster General there says in evidence that the General Officer Commanding South Africa estimated on 12th Nov., 1899, that his requirements in horses would be 5% a month. This 5% was to meet loss of every kind, including temporary, which of course has to be filled up if troops are to be kept at a point approximating war strength. This 5% was in reality an old War Office estimate, and had not been revised in accordance with later investigations of the loss of animals in war, † which had placed the percentage of loss from all causes at 8% per month. The war in South Africa produced a monthly dead loss of 5.583% for all horses, and 2.947% for mules, while the temporary loss in the Field was, in addition, 19.417% for horses, that for mules being unknown. The total inefficiency among the troops in the Field amounted therefore to 25% a month, but if calculated on the entire horse population, a large part of which was in the remount depots, it would naturally be less.

\* By dead loss is understood that due to deaths, destructions, captures, straying and casting; by temporary loss that due to sickness or injury. Taken together these form the total loss.

† See "The Loss of Horses in War," Vetry.-Captain F. Smith, A.V.D.—*Journal of the Royal United Service Institution*, Vol. xxviii., 1894.

TABLE SHOWING THE NUMBER OF HORSES AND MULES SUPPLIED FROM ALL SOURCES, 1st OCTOBER, 1899, to 31st DECEMBER, 1900.

OCTOBER TO DECEMBER, 1899.		
With Troops.	Horses.	Mules.
From the United Kingdom	8907	—
" India	2270	—
" Colonies	1074	—
Remounts from Oversea	6240	18,595
" obtained in South Africa	6688	7779
	<u>25,179</u>	<u>26,374</u>
After deducting loss at sea,		
Totals received	<u>24,532</u>	<u>25,909</u>
JANUARY TO DECEMBER, 1900.		
With Troops.	Horses.	Mules.
From the United Kingdom	11,934	—
" India	1754	—
" the Colonies	10,227	—
Remounts from Oversea	78,100	49,884
" obtained in South Africa	47,531	10,746
	<u>149,546</u>	<u>60,630</u>
After deducting loss at sea	145,976	59,383
After deducting those still at sea in December	6000	3000
	<u>139,976</u>	<u>56,383</u>
	Horses.	Mules.
Total supplied between Oct., 1899, and December, 1900, in round numbers	<u>164,500</u>	<u>82,300</u>

It is obvious that the losses during this period could be at once ascertained if the number of animals alive on 1st January, 1901, were known with any degree of accuracy. This is not the case. There is no table showing the number of survivors at any given period. At one time we had hoped to obtain the information from a table handed in by Lord Kitchener to the R.C., and printed by it, Appendix 34, p. 240. This table shows the state of supplies month by month throughout the war, and the number of animals for which forage was required, but the horses and mules are not differentiated. Further, the return is an *estimate* of probable requirements, and the numbers given are only a guess of what might exist two or three months later. Had this return been correct, it would have settled the loss for any period of the war, but after working with it for some time it had to be discarded.

We are therefore compelled to adopt the standard rate of dead loss referred to at p. 141, i.e., 67% (nearly) for horses, and 35.37% for mules. This



gives the following losses for the fifteen months Oct., 1899, to Dec., 1900.

Horses 110,028  
Mules 29,113

Let it be clearly understood these numbers represent the dead loss—deaths, destructions, captures, straying, and casting; they do not cover sickness, injury or debility, which represent the temporary loss.

The loss of oxen was also excessive, but the only record of it is that given by Colonel Sir W. D. Richardson, Deputy Adjutant-General for Supplies and Transport during the first phase of the war. In his evidence before the Royal Commission in reply to Q. 3391, *Evid.*, Vol. I., p. 139, he says:—"My recollection is that during the first fifteen months of the war some 150,000 trek oxen had been employed in military transport service in South Africa; of these over 70,000 had either died from exhaustion, been killed or captured by the enemy, or had otherwise become inefficient through the waste incidental to military operations." The loss is therefore 46.6%.

In all the operations carried out by the Cavalry Division under General French, it has been possible, thanks, as we have said, to his S.V.O., to obtain the most valuable statistical data as regards unit losses. No such information is forthcoming in connection with the very heavy losses in the Mounted Infantry, and seldom in those Cavalry Brigades working away from their Divisional General. There is, however, one exception, *i.e.*, the Third Cavalry Brigade, for which very careful returns were kept by Lieut. (now Major) F. W. Hunt, for the period June, July and August, 1900, and embrace all operations in which the Brigade took part from 8th June to the 3rd September. The table affords invaluable insight into wastage in war, and is the only one of its kind known to exist. Before giving the losses, it is well to recount the operations occurring during this period. They comprise the action at Diamond Hill, the march to Heidelberg, thence with Hunter into the Free State to Bethlehem; the march to Heilbron; the chase after De Wet from start to finish; the relief of the Elands River Garrison; the march to Zeerust, and the disastrous return march to Krugersdorp. The distance travelled was 1400 miles, to which at least 50% should be added for the extra ground covered by Cavalry.

The Third Cavalry Brigade consisted of the 9th, 16th and 17th Lancers, and "R" Battery, R.H.A. The average loss of each regiment per month, including sick, was, 9th Lancers, 67.7%; 16th Lancers, 69.3%; 17th Lancers, 86.2%. During the same period, half the 9th Lancers were remounted, one-third of the 16th Lancers, and more than half of the 17th Lancers. The latter regiment, indeed, between 20th June and 13th October received no less than 425 horses. As the period covered in the return is three months, it may be accepted that these figures are a fair criterion of the losses incurred by other units. In the appendix, p. 145, a detailed table of the wear and tear, including a record of the

sore backs will be found. It will be observed how few of the casualties are due to fire.

As an example of the loss which may occur even when no encounter with the enemy takes place, we may select the same Cavalry Brigade when forming part of the force which accompanied Hunter to Bothaville (see p. 109). The casualties occurred between October 16 and 26.

	Strength at date of marching.	Deaths	Destructions	Sent to Hospital	Total Casualties	Percentage of loss for 11 days.
9th Lancers	410	3	18	119	140	34
16th Lancers	320	13	34	63	110	34
17th Lancers	397	16	13	83	112	28

The same Brigade marched from Kroonstadt to Bloemfontein *via* Ventersburg and Winburg between Oct. 27 and Nov. 10, a distance of 160 miles (p. 109). The following were the casualties, of which the enemy inflicted none.

	Strength at date of marching	Died or Destroyed	Sent to Hospital	Total Casualties	Percentage of loss in 15 days.
9th Lancers	267	15	70	85	31.8
16th Lancers	236	26	66	92	39.0
17th Lancers	144	26	76	102	45.0

Nor were the slower moving columns, engaged practically on police duty, much less wasteful. Between Aug. 1 and Sept. 2, a small column under C. Knox had a dead loss of 10 per cent, and a total loss of 23 per cent. among its horses, and a dead loss of 7 per cent. and a total loss of 7.7 per cent. among its mules.

In a private letter to the Inspector-General of Remounts, War Office, written by the Assistant-Inspector of Remounts, South Africa, and quoted in *C. of E. Rem., Appendix F.*, we find several references to wastage. Under date Feb. 8, 1900, he says, "The M.I. get through ponies at a fearful rate, colonial corps especially—15 per cent. has been the average per month so far."

On May 13, 1900, he says, "I think the return of horses issued to — at Bloemfontein will astonish Parliament. It is accurate and compiled from the Depot books. . . no one in their wildest flights of fancy ever imagined that half the force would be dismounted in a fortnight. See Pocket Book, 60 per cent. per annum, and Franco-German War 100 per cent. per annum. At our present rate we shall run to about 300 per cent. per annum, I expect, or more."

When this letter was written the Assistant Inspector of Remounts knew that Colonel Rayment had foretold the destruction of these animals from starvation; this will dismount any force in a fortnight.

Though the army had been remounted at Bloemfontein, and again partly at Kroonstad, the General Officer on the line of communication cabled to the War Office on Aug. 17, 1900, for more horses, and



stated that since July 1 he had issued 13,000 horses and 2,500 mules, and that the supplies in hand would barely meet the requirements for September.\* These issues were to the Cape Army only. In the same Parliamentary Paper, under date Dec. 27, 1900, the monthly wastage in horses is given at 25 per cent.; that includes not only deaths and destructions, but sickness and general inefficiency. The case recorded on p. 128 of 300 remount horses out of a total of 500, being killed in less than three weeks from exhaustion, is an authentic example of severe loss; one of many which occurred during the campaign.

The following Army Orders published during 1900, show that the Commander-in-Chief was fully alive to the unnecessary wear and tear to which the animals with the Army were exposed, and that every endeavour was made by him to control neglect, indifference and inhumanity. It is certainly no tribute to a nation that has led the way in the prevention of cruelty to animals, to find that the issue of such orders was ever considered necessary. That cruelty and waste must occur in war is undoubted; it is a very rough and savage game in which, while men are engaged in killing each other, the finer instincts are for the time inhibited. But no such feelings should render us insensible to the sufferings of the willing slaves who are imported into the quarrel and are yet apart from it, nor render us less anxious to do the best for them that the circumstances of the moment permit.

The references we shall give to the dates of the Army Orders show the solicitude of Lord Roberts for the welfare and care of the animals of his armies, and the frequency with which orders were repeated demonstrates the small effect they produced. When we come to deal with those of 1901, we shall point out that certain orders bearing on these questions were directed to be read out to the troops at least once a fortnight!

The whole question of horse management will be considered in Part III., it is a large subject and can only be dealt with separately. What we are doing here is showing the measures adopted in an attempt to control useless wear and tear, and to inculcate humanity and consideration.

Within a fortnight of his arrival in South Africa, Lord Roberts issued a circular memorandum informing the artillery of the difficulty of replacing their horses in the campaign, and that if they considered their animals were being unduly worked as regards pace or distance, it was their duty to represent the matter to the commander of the column. In the same circular the cavalry were urged to save their horses as much as possible, that men should dismount on every available opportunity, and the greatest care and attention be paid to the feeding of the horses. On April 11 this order was republished, in consequence of the condition of the animals at Bloemfontein, and the text is reproduced on p. 54.

On Feb. 5, 1900, another most important circular dealt with the possible reduction in weight to be carried by the cavalry, and gave an example of the impedimenta which might be carried elsewhere than on the horse, thereby materially reducing the load on the animal's back. The question of feeding was also again referred to.

On Feb. 9, 1900, an Army Order was published directing attention to the pace at which mule transport should proceed, and was fixed not to exceed four miles an hour. "The efficiency of the Transport, which is of the greatest importance, depends on a strict observance of this rule." A few days later, February 27, attention was again called to the question of pace, and Provost Marshals directed to arrest and bring forward for punishment those who infringed it.

On March 8, 1900, an Army Order was published drawing the attention of all general and other officers to the inhuman practice of flogging mules and oxen resorted to by native drivers, and directing the latter be punished.

On April 11, 1900, the same question of cruel flogging and pace was again dealt with. Attention was also drawn to the weight of personal baggage carried, and orders issued that before the advance from Bloemfontein it was to be examined and weighed, in order to prevent overloading. The feeding, watering, and grazing of mules was also dealt with in this order.

On April 5, 1900, the question of personal baggage accompanying troops was again the subject of an Army Order, and the breaking down of waggons attributed to excessive loads. Again on April 25, 1900, attention was drawn to the mule transport being overworked, and Lord Roberts finally had to prescribe the only duty which it was in the future to perform, in order to secure the needful rest of the animals before the final advance from Bloemfontein.

On June 20, 1900, an Army Order sanctioned £5 a month to be expended in prizes to Mule Transport Companies for drivers taking the best care of their mules.

On July 7, 1900, sums varying from £3 to £1 a month were authorised for prizes among drivers of mules in Ammunition Columns. At the end of the year prizes were extended to drivers of oxen.

On Oct. 15, 1900, an Army Order was published dealing with the unnecessary wear and tear on animals caused by reckless driving and aimless galloping in spite of constant orders on the subject.

On Dec. 24, 1900, an Army Order was published drawing attention to the heavy casualties among draught oxen, and directing that steps be taken, by observing the rules for marching and grazing, to reduce these losses. A few days later it was notified by Army Order of Jan. 5, 1901, that the loss of oxen by neglect of ordinary precautions would not in future be replaced at the public cost.

\* Cd. 968, p. 44.

The history of the first phase of the war has now come to a close. All the features essential to a clear understanding of the various facts connected with the animals of the Army, have been related in sufficient detail to enable an estimate to be formed of the work required from them, the conditions under which this was enforced, and the resulting loss. We do not propose here to enter into the question of disease, this will be taken, together with other subjects, for the whole period of the

war in Part III., as will also the important question of horse-mastership, *i.e.*, the care of animals in the field, including the extremely important matter of sore backs and their prevention. Regarding disease, it suffices to say that, by the end of 1900, excluding exhaustion and starvation, the sick list was made up of contagious diseases and surgical cases. The Army was riddled with glanders, while mange cases existed by thousands.

## APPENDIX.

## 3RD CAVALRY BRIGADE. (See p.143.)

JUNE, 1900.

	Strength at date of Marching.	Remounts received.	Killed in Action.	Died.	Destroyed.	Aban- doned.	Sent to Hospital.	Sore Backs.	TOTAL Loss.
9th Lancers	234	133	1	—	8	27	85	48	169
16th "	330	3	14	2	8	46	88	85	243
17th "	260	79	—	3	1	92	133	90	319
"R" Battery	134	60	—	3	5	19	58	—	85
Total, Cavalry only	824	215	15	5	17	165	306	223	731

Brigade Loss = 70·3 per cent.

JULY.

9th Lancers	125	75	3	2	11	25	117	75	233
16th "	158	238	—	1	26	37	94	40	358
17th "	198	266	—	7	5	78	116	36	242
"R" Battery	139	97	—	13	24	26	58	—	121
Total, Cavalry only	481	579	3	10	32	140	327	151	833

Brigade Loss = 78·6 per cent.

AUGUST.

9th Lancers	191	8	1	3	11	55	23	20	113
16th "	236	40	15	25	43	54	34	20	191
17th "	217	37	3	3	2	98	42	30	178
"R" Battery	115	104	—	25	14	1	43	—	83
Total, Cavalry only	644	85	19	31	56	207	109	70	482

Brigade Loss = 76·6 per cent.

## PART II.

### THE GUERILLA WAR,

JANUARY, 1901—MAY, 1902.

#### INTRODUCTION.

THE GUERILLA WAR began shortly before Lord Roberts gave up the command in South Africa. The distinctive operations which marked its advent have already been considered, chiefly, however, in connection with De Wet's attempt to enter Cape Colony in November and December, 1900. We now know that the latter, and all the subsequent operations, were the outcome of the meeting in the Transvaal of President Steyn with General Botha—where the plan of future campaign was decided upon. The scheme of invading Cape Colony was stimulated by the general optimism of the enemy. The war had already been proclaimed at an end, and that in consequence only roving bands required to be dealt with. The Army, it was stated by the Government, was to be reduced to one half by the end of 1900, and to one quarter during the first month of 1901. The departure of Lord Roberts and others in high command was a confirmation of this view; the termination of the year's service of a very large number of colonial troops, some of which had already been disbanded and others promised immediate relief, consolidated it.

The Army generally was tired. For months everyone had been working at high pressure, and the official optimism which now prevailed promised early relief, and consequently led, far too frequently, to carelessness and indifference in taking ordinary precautions. No better time could have been selected by the Republican authorities to indicate that the war was far from over, and it was not many days from the time Lord Kitchener assumed command, before they exhibited evidence of the tenacity and dogged determination of a virile, proud, and intensely patriotic nation, sorely stricken but by no means beaten, while these recrudescences were marked by a boldness in their schemes hitherto unknown.

It will facilitate a better understanding of the long campaign now about to begin if we look at the forces at work, and the material with which Lord Kitchener had to make war. He had an Army of 195,400 men as opposed to from 30,000 to 50,000 of that of the enemy. The great bulk of his force was infantry, and if no other lesson had been learned during the preceding year, that of the futility of sending a man on foot to catch a

man on a horse had long been recognised. The infantry were about to enjoy the long rest they had richly earned, for though they still found here and there a place in columns, their position naturally fell in all subsequent operations to the lines of communication, which in addition to that of the railway, was later on to be extended to the extensive network of wire fences and block houses, with which the area of hostilities was finally to be honeycombed.

The war in future was to be one of columns of mounted forces, and owing to the loss by the enemy of their artillery the number of guns with these were considerably reduced. The transport underwent a modification; no column could, of course, move without some kind of transport, but rigid measures were taken to ensure that bare necessities only were carried. It was a long time before this came into operation, during which the pendulum had been all the other way, and unauthorised transport, to an extent which would hardly be believed, dogged the movements of columns and increased the drain on the supplies.

The blockhouse system was introduced during 1901. At first it only applied to the lines of rail. In June the first cross-country line was laid, running across a part of the Eastern Transvaal. In July another line was laid; this was in the Western Transvaal; by November the system was being adopted on a large scale to portions of the Free State and Transvaal. We shall see the bearing of this on the subsequent operations, for it facilitated enormously the question of supplies, reduced the wastage of transport animals, and permitted the troops to keep longer in the field. Moreover, the change in tactics brought about by the fencing system gave the horses steadier though longer work. It was not, however, until the last two months of 1901 that the system was fully introduced, so that its beneficial effects, so far as the animals were concerned was more evident in 1902.

The essential difference between the campaign of 1900 and 1901 was the creation of wholly mobile forces; in future we shall speak of them as mounted troops, for the cavalry was so disintegrated and mixed up that its identity was almost lost. The mounted forces were made up of the shattered Cavalry Division, the Mounted Infantry, the Colonial troops, and the Yeomanry. The change

to wholly mounted troops could not be effected at once, but steps were taken to bring it about as early as possible. Even as early as January some 40 mobile columns had been formed.

The wastage of war in men and animals far surpasses all that the inexperienced can imagine. Apart from that caused by fire and sickness, there is a leakage which becomes enormous in a large Army, due to men dropped by the way and never recovered; men picked up and employed on other duties without the knowledge of their regiment. Many officers and men were tired of war, and only too glad to be found a "Staff appointment," or to remain undiscovered at a base, or on the lines of communication.\* The straggling was not confined to men; horses, as we have seen, had been dropped everywhere by the troops throughout the length and breadth of the area of hostilities, and these were a dead loss to the Remount Service. Very early in Lord Kitchener's command measures were adopted to control this source of wastage, and it will be alluded to in its proper place.

One source of loss which the Commander-in-Chief had to face was that the time of field service of the volunteer troops was expiring. The Colonials, both oversea and local, were now at the end of their engagement, and a little later on the time of the First Yeomanry would expire. It may be thought that this matter can have little or no bearing on a veterinary history, but it is exactly otherwise. The damage done to horses early in 1900 by the training of this mass of material would necessarily have to be repeated if they were replaced. With the disappearance of these men was lost all the lessons, small as they were, they had learned in horse management. The horse losses up to the end of 1900 are heavy enough to stagger the imagination, but those of 1901 are greater. Among the causes which kept the veterinary hospitals full to overflowing was that just mentioned of an increase in the number of mounted troops, and the extra wear and tear caused by their ignorance of horse management.

Though regular troops have to keep the field till war is over, their wastage is made good by the reserves. In the case, however, of the mounted infantry there was no reserve. Reserves for regiments created mainly on the lines mentioned at p. 31), were now as far as possible trained at home before being sent to South Africa, while the extra numbers required were obtained by volunteers from the infantry regiments in the country; other men were trained in a depot formed at Pretoria.† This

\* The writer found a mounted infantryman settled down in a native kraal. He was waited upon and fed by the women, and looked the picture of health and comfort. Unfortunately having lost his horse he could go no further, and was waiting until he could be picked up! For this class of delay the men showed great toleration, even months did not exhaust their patience. The principle extended to all ranks and departments. There was a civil veterinary surgeon who was missing for a whole year!

† They were also being trained in the face of the enemy as late as January, 1901. "It was not very reassuring to

latter arrangement prevented the trying experience which occurred under similar conditions in Feb., 1900, though it must not be supposed that the men sent from home and those trained locally were rendered expert in the matter of the care of their horses.

But if measures were taken to prevent a recurrence of the disastrous scenes witnessed in the M.I. early in 1900, such steps were useless with the new Yeomanry. Both officers and men of the 1901 Yeomanry were, generally speaking, utterly ignorant of the care and management of horses, and it is a regrettable fact that in many cases they left on the mind of the observer the impression that they did not wish to learn. The waste of horses incurred in teaching this so-called Yeomanry can never even be guessed at. This wastage was not only due to downright neglect and indifference, but also to ignorance. The officers were as ignorant as the men, and the sore-backs produced by this branch as a consequence are beyond all calculation. The Yeomanry of 1901 were in many cases an ordnance and remount depot for the enemy.

As early as 19th September, 1900, the War Office in advising Lord Roberts of a consignment of 11,700 horses and 3000 mules, asked him whether it was probable any more animals would be required.‡ In reply it was informed on 24th September that the number would meet requirements up to the end of November, and a month later, Oct. 22,\*\* 4,600 were asked for, to arrive by the end of December. According to the *Times History* ¶ a week before Lord Roberts left Pretoria, purchasing was stopped by the Remount Department, due to the false estimate of the military situation by the War Office. The words of the *Times History* are as follows:

"The week before Lord Roberts left Pretoria the Remount Department at home was ordered to stop buying and to recall their purchasing commissions from abroad; consequently the officers in Italy, Spain and Canada, returned home. But on the assumption of command by Kitchener, the demand arose in December to 7,600 horses and 2,000 mules, and as these numbers steadily increased the Remount Department could never wholly make up the lost ground."

This is an important statement from a veterinary point of view, but does not receive support from the available official papers. The last telegram from Lord Roberts on the question of the supply of horses is dated Nov. 24, 1900,‡ and in it he says "I fear I cannot reduce demand for horses just at

see the Mounted Infantry being taught to ride in a riding school in the centre of the valley, where they were trotting round morning, noon, and night. This was field training with a vengeance, and no doubt Delarey's men with their telescopes were criticising the various styles of horsemanship."—"The Fives in South Africa," p. 103. J. P. Sturrock, 1903.

‡ Cd. 963, p. 44. Cable No. 56.

\*\* *Idem*. Cable 59.

¶ Vol. V, p. 73.

\* Cd. 363, p. 45. Cable 62,



present below 4600, but instead of 2000 mules monthly, think 1000 will do."

As a matter of fact Lord Roberts cabled home on July 20, 1900,\* and said that the supply of horses could be reduced by 20 per cent., but 25 days later 11,000 more horses and 3000 more mules were asked for.† These were promised for delivery in South Africa by about Oct. 15, and were specifically stated by Lord Roberts as only being sufficient to meet requirements up to the end of November.‡ General Truman, in his evidence *C. of E. Rem.* Q. 6867, says that it was on October 28, 1900, that he was ordered, to reduce buying, and to break up the Commissions in Canada, Argentina and Hungary. The fault clearly cannot lie at the door of Lord Roberts, for the Commissions were not broken up on receipt of his July cable. Further, the table of horses supplied month by month during the latter half of 1901\*\* does not support the view that any serious reduction in the numbers of horses supplied occurred in consequence of the above cables. For instance, for the quarter ending June 23,400 horses were supplied, for the quarter ending September, 30,800, and for that ending December 40,300. The tables show, however, that the aggregate supplied per quarter in June was less than that asked for, but this could not have been affected by the July cable. For the September quarter there were 1000 horses less supplied than had been demanded, but for the December quarter there were nearly 10,000 more horses supplied than had been asked for, and looking still further into a year which does not come within the scope of this part of the history, in January, 1902, there were 3000 horses supplied over and above the demands. We do not consider, therefore, that the temporary stoppage of purchases could have materially affected unfit animals being sent into the field, and certainly affords no support to the view that the ground thus lost to the Remount Department could never wholly be made up.

Towards the creation of a mobile force, Lord Kitchener's first step was to place the mounted infantry on a better basis, and on Dec. 13, 1900, a depôt and training camp were formed at Pretoria under Colonel Alderson. One thousand mounted infantry from home were promised to be despatched in January, and two or three thousand more were to follow when trained. Two regiments of Cavalry were also sent from home in January, and in consequence of the serious turn of affairs Colonials and Yeomanry were asked for to replace the first contingents now due for relief.

On Oct. 27, the War Office had been notified|| that 7600 horses and 2000 mules would be required

monthly, also that all fresh units being sent to the seat of war, should bring their horses with them, and for every hundred animals so arriving, twenty-five additional monthly were to be added to the 7600 when required. In other words the anticipated wastage\* was at the rate of 25 per cent. per month.

The appeal to the public for Yeomanry, and to the Colonies for men to replace those whose time would shortly expire resulted, by the end of March, in 16,000 men and 500 officers being raised for the Yeomanry; while Australia sent 4000 officers and men. Many hundreds were also picked up in South Africa from disbanded regiments, and some 24,000 locally raised in other ways. It was five months before the above change had been brought about, but it resulted in a large body of mounted troops being obtained, so that by May, 1901, the figures stood somewhat as follows:—

Cavalry, 14,000; † Mounted Infantry, 12,000; Yeomanry, 17,000 (exclusive of the old Yeomanry, now time expired); Overseas Colonials, 4,000; (exclusive of the first contingent, now time expired); S. A. Irregulars, 24,000; District Mounted Troops, 13,000 (in Cape Colony only).—Total, 84,000.

This increase in the number of mounted troops† placed a still further strain on the Remount Service. Eighty-four thousand men do not, however, mean 84,000 horses daily in use. Subtracting from the above the District Mounted Troops horsed by local arrangements, there remains 71,000 mounted men. But again from this extensive deductions have to be made for sickness and employment other than on mounted duty in the field, and these non-effective numbers are probably not less than 10,000. In fact, a fighting state of June, shows that ‡ the actual number of men mounted on a given day was only 59,000, exclusive of artillery.

What remains for us now is to describe the work performed in 1901, and in connection with this some short explanation is necessary.

It had been hoped at one time to condense the various operations carried out by the innumerable columns by giving a list of the same with their dates, but the results were unsatisfactory; they failed completely to convey a notion of what the horses were called upon to perform, for it must not be lost sight of that the campaign of 1901-02 was wholly the campaigning of mounted forces.

\* The term wastage must be distinguished from dead loss. The latter comprises deaths, castings, destructions, straying and abandoned; wastage covers, in addition, sickness and exhaustion.

† Before the end of the year the Cavalry had been raised to 16,000 and the Mounted Infantry to 14,000, yet so great was the need for rifles on horse back, that before the end of 1901 the Royal Artillery, now no longer required in the field, were converted into Mounted Rifles.

‡ Before the end of the year the Colonial contingents numbered 6,400.

|| See *Times History*, Vol. v., p. 249.

\* Cd 963, Cable 50.

† *Idem* Cable 58.

*Idem* Cable 57.

\*\* *C. of E. Rem.* Report p. 4.

|| Cd. 963, p. 47, Cable 73.



course the animal was prevented from getting at it. The best way of doing that was to put a stiff leather collar on and treat it in the same way; recovery took place at once. Either a large, flat collar, or a stiff collar to prevent the animal curling round to get at it could be used. Formerly one regarded the causes of eczema as being intrinsic; now they were chiefly viewed as extrinsic, i.e., that the trouble arose from the outside. He thought arsenic might be used rationally in skin diseases, especially where the chronic form of irritation occurred. As was well known, if employed for any length of time, it had a paralysing influence upon the cutaneous nerves and thus tended to reduce the irritation. Improper diet no doubt contributed to eczema, and it was natural that one in beginning to treat a case would see that the functions were acting properly. If necessary, a little opening medicine should be given to the dog, and of course his diet should be attended to. He thought soap in a solid form was a very wrong thing to apply direct to the skin of a hairy animal. If his clients used solid or soft soap, he always recommended them to make a lather and apply that, never to apply the solid soap to the hair, as it was almost impossible to rinse it off. If a liquid soap was not used, a solution should be applied. With regard to tar paving being a common cause of eczema, eczema was common enough before tar paving was introduced. If it was a contributory cause to-day, it could not have been so at an earlier period. He had not seen a great deal of eczema of the pad, but he had frequently seen cases affecting the interdigital structures. It was more usual for the skin between the claws to be affected than the pad itself. Cooling salines were no doubt useful in cases of eczema.

Mr. LIVESSEY said that 80 per cent. of skin cases brought to him and described by owners or veterinary surgeons as eczema were cases of mange, which gave way to sulphur ointment properly applied, or, better still, sulphur, some alkali and oil rubbed into the skin. The parts affected were generally the chest, the elbows, and the backs of the thighs. He did not want them to think he considered that eczema was not common, for it undoubtedly was, but the term was frequently used to cover a multitude of diseases—practically every affection of the skin the dog was heir to, even ringworm and such contagious diseases.

The commonest form of so-called acute eczema was where there was acute dermatitis and inflammation of the outer cuticle, with the formation of a large quantity of serum with pus on the outside skin, accompanied by intense pain. That was the worst form they knew. It spread rapidly outwards, and was undoubtedly communicable from one dog to another. Of other forms, the most common was the chronic scaly eczema so often seen on the Scotch terrier as described by Mr. Chamberlain. If one studied those two forms, all the rest became more simple.

For the acute form the best thing to do was to keep the animal scrupulously clean with some antiseptic; anything would do, but he recommended peroxide, drying the part from any froth that had formed, clearing the hair from the surrounding edges and sprinkling on a little black wash. The next day it would be dry, and in two days the crusts would be removed, a perfectly clean healthy skin being found underneath it in the majority of cases. It was very important to get the edges perfectly clean, and to leave no infecting matter on the hair surrounding the irritable parts. With the chronic form the best thing to do, if the owner would allow it, was to clip the hair along the line of the back, clear off all scales and crusts, get the skin clean and dry, and rub on some dressing, such as sulphur, zinc oxide and salicylic acid, combined with lanoline. Some of the

long-haired dogs were very subject to acute eczema, and the wire-haired were subject to the chronic scaly forms.

He thought what was often called eczema in dogs was really seborrhoea. The sweat glands of a dog did not open so freely as in a human being. The idea that they were confined to the tongue and between the toes was not correct. He had demonstrated to his own satisfaction by means of a microscopical section that they were distributed all over the surface of the body; they did not open freely on the surface of the skin, but into the hair follicle, and for that reason they frequently became clogged. The dog was a dirty creature; he would roll in the dust and get his coat matted, and it was very easy for him to get his sweat glands obstructed. Walking backwards and forwards underneath the furniture, he would rub his itching back, and that was the cause of the trouble, for the thickest skin was on the middle line of the back and between the shoulders. Saturation with hot water was required in such a case to open the mouths of the glands, afterwards putting on some emollient. That was not eczema at all, although it was generally so-called by the public.

He disagreed with the view that there was any connection between interdigital abscess and eczema, or that internal parasites had anything to do with skin diseases in dogs, except occasionally round worms in the stomach and intestines; tapeworms had no effect on the skin whatever. He believed eczema to be non-contagious for the most part, and only contagious in certain acute forms where the matter was transferred from the skin of one dog directly on to the sore spot of another. So-called contagious eczema he invariably found to be mange.

Prof. MACQUEEN: What mange?

Mr. LIVESSEY: Ordinary sarcoptic mange. Continuing, Mr. Livessey said so-called puppy eczema was usually pustular distemper or sarcoptic mange. He had never seen typical eczema in a puppy under six months of age; it was essentially a disease of the mature dog. If a suckling bitch had eczema, he did not think there was any danger for her puppies; if she had mange, there were a thousand to one chances that she would pass it on to them.

He did not agree with the previous speakers in regard to soap; he had rubbed soft soap on dogs and left it on without any ill effects. With regard to dressings, they could not lay down hard and fast rules. No two dogs were alike; they differed individually. He would be very sorry to use Mr. Almond's paraffin preparation on many dogs he knew. Some dogs could stand it, but tender skinned animals would become rapidly inflamed. He thought internal treatment had no value at all beyond keeping the animal in a general state of health. The most essential thing was to allay irritation, as that would prevent the dog from causing further irritation by transferring dirt on to the sore spot from his foot. He did not think it necessary to keep the dog tied up with a collar. Marvellous results were often obtained from scrupulous cleanliness followed by the application of some soothing emollient dressing, such as ordinary zinc oxide combined with minute quantities of carbolic acid. The dog should be kept indoors for some days so that he did not bring in the abominations of the street on his feet and transfer them to an already sore place.

Prof. MACQUEEN said the discussion was the most extraordinary he had listened to in his career in the profession. If they had made an attempt to declare themselves empirics, they could not have succeeded better. One naturally began to wonder, was there such a thing as eczema of the dog? The definitions of eczema led one to ask the further question, could they be applied to the skin of the dog? He did not know whether they should try to recognise causes for a disease



about which there was so much doubt. Most observers would agree there was a condition of the skin commonly spoken of as eczema which on examination was found to be inflammation or dermatitis. Whether eczema was always a vesicular eruption was open to question. All cases of so-called eczema did not show vesicles, and those that did could not always be so described. He did not believe that cases of mange eczema, occurred in anything like the proportion quoted by Mr. Livesey. In the human subject there was a form of eczema which was really a neurosis, and which attacked persons subject to eruptions as a sequence to sudden emotions of grief, excitement, or fear. It might be that since the advent of motor traction the dog was suffering from unusual excitement, and it might be necessary to take into consideration the point—was eczema or so-called eczema in dogs on the increase in London? He was inclined to think it had been since the introduction of motors. If eczema was on the increase, could it be attributed to a dietetic cause—were the artificial foods and biscuits, from which large profits were derived common causes of eczema, especially those biscuits so carefully described by the essayist, which showed on section a few traces of meat of bad quality? With regard to the local appearance of eczema, the form that attacked the eyelids might be due sometimes to eye trouble. That confined to the digits, whether eczema or other irritation, was probably only associated with cysts by pure coincidence. As to whether the disease was contagious or not, they were in the same difficulty as at the beginning. If it was a simple irritation or dermatitis, probably it ought not to be so regarded, but if all external inflammations were to be regarded as bacterial in origin, then it ought to be looked upon as contagious by inoculation or by direct contact. If it was largely parasitic, like sarcoptic mange, then of course it would be contagious, but otherwise it seemed to him that unless they recognised in the inflammation of the skin a bacterial infection, it was not likely to be contagious. He noticed Mr. Chamberlain gave two recipes containing fat. One contained olive oil, and the other lard. He had been taught—and he had no reason to alter this view—that no fatty application to the skin was likely to be beneficial in eczema. He made an exception in the case of dry eczema, which might not be eczema at all, where the skin was scurfy, for probably in that condition a fatty constituent would be of advantage, but for the ordinary weeping eczema—let them call it dermatitis or seborrhoea if they liked—he maintained the proper treatment was a dressing free from fat, or even a dry dressing. The third recipe given by Mr. Chamberlain was more modern, and, he thought, more likely to be beneficial. With regard to internal remedies, the use of arsenic in veterinary practice was based on experience of its action in the human subject. Its use was largely a fallacy when applied to the smaller animals, but the practice still continued. In skin disease of dogs arsenic often aggravated the condition it was meant to relieve. It gained some of its reputation in human therapeutics because of its effect in producing oedema of the skin, which gave persons suffering from eruptions a feeling of relief that led to an improved appearance. But for years he had not used it in treating dogs with skin disease. He knew of no remedy one could pour into a dog's mouth that would reach its skin within a reasonable time. He believed in Mr. Livesey's treatment for many cases of so-called eczema, sulphur, with potassium carbonate and oil or lard would do very well if one suspected mange, but in other cases he relied on a water or spirit dressing. Most dogs affected by what might be described as eczema were benefited by a purgative. He hoped the discussion would be continued next month, so that they could have an opportunity of weighing the various contradictory statements including his own.

On the proposition of Mr. Hunting, seconded by Mr. Davis, the discussion was adjourned to the June Meeting.

On the proposition of Professor Wooldridge, seconded by Mr. Slocock, Mr. Neish was accorded a vote of thanks for his post-mortem specimen, and the meeting terminated.

HUGH A. MACCORMACK, Hon. Sec.

#### SOUTH EASTERN VETERINARY ASSOCIATION

A general meeting was held at the Star Hotel, Maidstone, on Wednesday, May 7th, when there were present Mr. James Crowhurst, President, Canterbury, in the chair, Messrs. E. Lyne Dixon, Margate; W. Hunting, London; Oscar Stinson, Marden; G. Fordham, Ashford; H. V. Dier, Mayfield; Cecil Crowhurst, Maidstone; Percy Gregory, Tonbridge; D. R. Chalmers, Tunbridge Wells; W. Caudwell, Chertsey; T. Hibbard, Gillingham; W. W. Gulleford, Hythe; William Coveney, Headcorn; Frank Robards, Dartford; J. Basil Buxton, D.P.H., Herne Hill; Frank Warren, Hadlow; G. W. Dunkin, D.P.H., Canterbury; H. P. Hogben, Folkestone; Thomas Hogben, Ash; E. W. Morris, Uckfield; W. R. Emery, Guildford; E. Morgan, Faversham; T. A. Huband, Sevenoaks; Elmer Ebbets, Rochester; Robert Elliot, Cranbrook; P. J. Austin, Pembury; W. H. Crowhurst, Canterbury; H. B. Eve, Folkestone; J. M. Richardson, Deal; J. B. Dier, East Grinstead; E. G. Crowhurst, Leamington; and Theo. C. Toope, Dover, Hon. Secretary; Messrs. H. E. Jackson, W. D. Halfhead, and Charles H. Huish were present as visitors.

#### MEETING OF VETERINARY INSPECTORS.

The PRESIDENT explained that that meeting of veterinary inspectors had been called in consequence of certain correspondence with the Kent County Council. Some of the members were aware that the Association sent on particulars to the County Council in accordance with their request as to the duties a veterinary inspector had to comply with the Order. The County Council were very pleased and satisfied with that explanation. Since that they had put it to the County Council that they had no wish to dictate terms in any shape or form, and they could trust them to fix their fees for carrying out the Tuberculosis Order on the same lines as existed for inspection generally. Since then the County Council had paid them the compliment of asking them to submit a scale of fees to them. In dealing with the matter later they would come to a point in regard to the submission that no fee was necessary to them for valuing an animal. The Kent County Council had put down on their schedule the valuing of animals, and had invited them to suggest a fee. He thought they would consider it and attach a fee to it. In explanation of that he wished to say that he had made inquiries as to fees for valuation of stock in markets, and had ascertained that the usual fee was 5/-. It seemed to him to be a very reasonable fee to charge.

The SECRETARY said the first matter before them was really to give a report of the inspectors' committee meeting which was held to deal with that subject. After a good deal of discussion in reply to a letter which he received from Mr. Prosser on April 7th the committee drew up a reply. The letter received from Mr. Prosser was as follows:—

7th April, 1913.

"Tuberculosis Order, 1913,

Dear Sir,—I have your letter of the 6th inst. for which I am much obliged.



This order will be considered by the County Councils Committee on the 22nd inst., but there will be no time on that occasion to confer with the Committee of Veterinary Inspectors which has been suggested.

My committee will however be glad to receive and consider any suggestions which your committee can put into writing with regard to the future working of the order, which is one of great importance and special difficulty. If you could let me have a letter embodying such suggestions by Monday the 21st inst. my committee would be much obliged.—Yours faithfully,

W. B. PROSSER, Clerk to the K.C.C.

As a result he called a meeting of the Standing Committee of the Society, and at their request he forwarded to Mr. Prosser the following letter :—

"34, High Street, Dover.

Re Tuberculosis Order, 1913.

Dear Sir,—I am requested by the Committee of Veterinary Inspectors to submit the following for your committee's kind consideration.

Our object in asking for an interview was to receive their instructions as to the carrying out of the order and submit a few suggestions embodied in this letter. The valuation of animals slaughtered will be attended with considerable difficulty, it is an onerous and important duty which we trust will be so recognised. The general idea of the order is that the owner is to be protected from loss by a generous valuation. Your inspectors are desirous to act with justice to both the County Council as well as to the owner, and a short interview would have been of great value to them as they feel they will need the support of your committee in order to carry out their duties, it being fully recognised that very considerable pressure will be put upon them as valuers by the owners, possibly also clients. The inspectors think the order should not be applied too drastically at the beginning, the assistance of the owner being required for its effectual working. Your inspectors are making themselves efficient as valuers by watching the markets, etc., and they observe that great changes in ownership are taking place now, especially amongst dairy stock, the value put upon suspicious animals being very low, in fact on many occasions no offer for them is forthcoming.

As to fees for services rendered by veterinary inspectors they have every confidence in believing that they will be fairly treated by the County Council on the lines now in existence, they make bold to suggest that the following brief summary of their duties under the order may be useful to your committee :—

1. On receipt of report, without delay a searching clinical examination must be made.
2. Also of other bovine animals associated, conducted with a view to discovering tuberculosis in the following forms : *a.* Tuberculous udder with or without milk infection ; *b.* Advanced tuberculosis in lungs or other organs ; *c.* Other lesions likely to contaminate milk, also abnormal discharges ; *d.* Tuberculosis with emaciation.
3. The application of the tuberculin test.
4. Microscopic examination of milk, faeces and any abnormal discharge.
5. Careful valuation of animals, (1) as diseased, (2) as free from tuberculosis.
6. Post-mortem examinations, with due consideration of salvage of carcase or parts of it, and compensation.
7. Disinfecting and cleansing.
8. The close inspection of markets, sales, etc.

Under each of these heads they beg your consideration of the following notes :—

1. Much expense can be saved by careful clinical examinations, tubercular mastitis can be diagnosed in many cases by character of lesion and confirmed by microscopic examination of milk.

2. This is a useful precautionary measure.

3. This needs 5 visits, 2 before testing and 3 subsequent ones, in the majority of cases the discretion of the veterinary inspector must be exercised in this.

4. Micro-examinations require patience, several slides may have to be made before a satisfactory one is obtained, the bacilli not being always free in milk, expensive apparatus being essential.

5. Much tact will be required in valuations, the good will of the owner must be retained if possible and absolute justice done to Local Authority at the same time.

6. Post mortems must be thoroughly made, (1) to determine disease, (2) to assess compensation.

7. Needs little comment.

8. Market inspection will have to be more than a casual examination, very frequently the udder will have to be examined, and provision made for removal and detention of suspicious animals.

Lastly the committee suggest that a standardised tuberculin should only be used, obtained from one source alone to insure uniform results.—I have the honour to be, yours very faithfully,

THEO. C. TOOPE, Hon. Sec."

In reply he received the following letter.

"Sessions House, Maidstone.

May 1st, 1913.

Re Tuberculosis Order, 1913.

Dear Sir,—The Kent Local Authority has decided that all the County Veterinary Inspectors should be employed in connection with the examination of animals under Section 4 of above Order, the valuation of animals before slaughter under Article 6, post-mortem examination under Article 7, making of reports and the issuing of certificates required under such articles, and the giving of notices under Articles 9, 10, and 11 of the Order, and a sub-committee has been appointed to consider at an early date the question of fees to be paid to such inspectors for their services under the Order.

I understand that you have a meeting of your Association on the 7th inst., and if the Association desire to make any suggestions with regard to such fees for consideration by the sub-committee, perhaps the matter can be considered at your meeting next Wednesday.

Any suggestions should be forwarded to me as quickly as possible after that day as the sub-committee will meet at an early date. Enclosed is a list of items which can be used as a basis for discussing the various fees.

It would be helpful to the sub-committee if on considering the fee fixed for one animal under items (1), (4), (5), (6), and (8), an alternative fee can be suggested, for any given number of animals on the same premises.

—Yours very faithfully,

W. B. PROSSER, Clerk to the Kent C.C.

With that letter Mr. Prosser forwarded the following schedule :—

1. Clinical examination : (a) for one animal (b) For each animal after the first examined on the same premises
2. For making report of such examination
3. Obtaining owner's consent in writing for application of tuberculin test
4. For applying the tuberculin test, and for each visit to take the temperature subsequently (Tuberculin to be applied free of charge by the Local Authority)

5. For taking and despatching for microscopical examination, milk and other discharges
6. For attendance to value an animal or any number of animals on the same premises
7. For certificates of value to Local Authority and owner
8. For making post-mortem examination of each animal
9. For report of post-mortem
10. For certificates of results of p.m. exams.
11. For each notice served under 9, 10, and 11 of the Order

They might be aware, and no doubt most of them were aware, that the Kent County Council had seen fit to take away from them the work of making microscopical examinations of milk and other discharges, and had suggested that the samples should be sent to Maidstone to the Medical Officer of Health for that purpose. As they all knew that was altogether foreign to the idea of the Order, and he had received some letters with regard to it. One letter he had received it pained him to read, because it was from their friend, Mr. Richard Roberts, who, he regretted to say, passed away a couple of days since:

"Tunbridge Wells. April 30.

Dear Mr. Toope,—Have you received one of the Kent County Council's circular letters to the Kent Veterinary Inspectors, if not, ask the President to get you one. I will give you one paragraph:

"The microscopical examinations of milk, faeces, urine, or any abnormal discharge from bovines for the presence of tubercle bacilli, is not to be made by the County Veterinary Inspectors but will be carried out under the supervision of the of the County Medical Officer of Health at the County Council's Public Health Laboratory at Maidstone."

I think this is quite derogatory to the veterinary profession, and I also think they should not fall into the trap. Perhaps you will have this matter put on the agenda at the meeting on May 7th. I shall try to get to the meeting if I am well enough.—Kind regards, etc. yours faithfully,

(Signed) RICHARD ROBERTS, F.R.C.V.S.

A letter from Mr. Trevor Spencer, Secretary of the new National Veterinary Inspectors' Society, said:—

"He sincerely hoped we should strongly protest against such action at our meeting, as other counties might follow the example."

Prof. Wooldridge wrote stating that they ought to make some move in that matter; it was contrary to the Order, with which the Medical Officer of Health had not the least concern.

Mr. E. LYNE DIXON (Margate) said he quite agreed with the remarks that were implied in the letter sent by Mr. Spencer on that matter. He was given to understand from what Sir Stewart Stockman said at the first meeting of the inspectors that this was their opportunity to come to the front and take their proper position. He was very much surprised when he received from Mr. Prosser at Maidstone a notification, with a huge box bound at the edges with iron, enclosing certain bottles, instructing him to send all milk, faeces, etc., to Maidstone. He considered they should make some protest, even if ineffectually. From what he understood veterinary surgeons, like men, were rising to the situation. He thought it was their duty to notify the County Council of their opinion, and he thought it was their duty as a profession to object to the method proposed, although to a certain extent he admitted the responsibility would be taken off their shoulders.

The SECRETARY read the following letter he had received from his Council at Dover:

69 Castle Street, Dover.

Tuberculosis Order, 1913.

Dear Sir,—The Local Government Board are evidently anxious that proceedings under this Order should not be hastened or too readily enforced, and as the matter will probably not come before the Public Health Committee again before the month of June, I think it would be well that you should not take any proceedings under the Act until the Committee have again considered the matter.

It would appear probable that arrangements could be made for bacteriological examinations rendered necessary by proceedings under the Order to be made at the County Laboratory where such examinations in connection with human tuberculosis are already made for the Council.

I understand, too, that the County Council propose to supply all inspectors in the county under this Order (including those in autonomous boroughs) with outfits for taking samples of milk, etc.—Yours faithfully,

R. E. KNOCKER, Town Clerk."

The Dover Council, said Mr. Toope, so thoroughly made up their minds that they would give him a free hand in the matter, but now he received that notification which showed that he must not act as they suggested but according to the ideas of the Local Government Board.

Mr. HOGGEN (Folkestone) said he agreed with Mr. Dixon. He had been to the Town Clerk of his borough and told him he should be prepared to do the whole of the work. He thought they should protest against the action of the County Council.

Mr. HUNTING asked whether the samples were to be sent to a bacteriological laboratory or to the Medical Officer of Health.

The SECRETARY said they were to be sent to a medical officer appointed especially under the M.O.H. supervision.

Mr. HUNTING said if the samples were to be sent to a laboratory, and not to the medical officer personally, he did not see anything much to grumble at. (Hear, hear.) If a man was constantly doing that work and nothing else he was an expert, and no country practitioner with one case a week could become an expert. He did not think they need look upon it as a case of professional rivalry. He did not think the County Council had any idea of putting the medical officer over the veterinary profession. If the laboratory was ready it could do the work for the medical officer as well as for the veterinary officer.

The SECRETARY said the county laboratory was mentioned in the letter. It also referred to the Local Government Board.

Mr. HUNTING: Some of these men don't know the difference between the Local Government Board and the Board of Agriculture.

The SECRETARY: The writer of this letter knows well enough.

Mr. GULLEFORD said when he read Sir Stewart Stockman's speech he understood the Order was to be worked under the Contagious Diseases of Animals Acts and not under the Dairies Act. He should like to see some arrangement made for the laboratory to be at Wye Agricultural College under Professor Cave. He did not know whether it would work in practice, but he thought they ought to see that the work was not done by the medical officer. Primarily it was the condition of the order they were concerned with. If the medical officer examined the milk as an article of food and it confirmed the other report so well and good, but he wanted to see the whole of the work under the Order carried out by the veterinary profession rather than by the medical profession.

The PRESIDENT said they need not be too jealous. Their aim and object was to diagnose the disease tuberculosis. The milk examination was only one feature of it. There were various ways of determining whether an animal had tuberculosis or not. It was not an easy matter to always find the bacilli in milk. After Dr. Ponder found the bacilli of tuberculosis his business ended, but the veterinary surgeon's business began. They had to find which animal the diseased milk came from unless they could say it came from a particular cow. Sir Stewart Stockman wished the matter left exclusively in the power of the veterinary inspector, his remarks being pointedly directed to that. After Dr. Ponder had discovered the bacilli the matter reflected back on them. They would not like to order on the strength of his report the slaughter of an animal unless the responsibility rested with him entirely. A gentleman had suggested the bacteriological examinations should be made at Wye College, but he (Mr. Crowhurst) thought there was no occasion for any alteration. The County Council having decided to have the work done at Maidstone. He thought perhaps they had adopted the better course of the two, and one more satisfactory to the veterinary profession. If the meeting desired that some protest should be made, the Committee would draft a report and send it to the County Council.

Mr. ROARDS pointed out that in the circular sent round it said the laboratory at Maidstone was only open five days a week. If they were called out on a Friday they could not get a specimen because unless they could get it through by five o'clock on a Friday they would have to wait forty-eight hours before the bacteriological examination could be made. A great point was made in the Order that everything should be done promptly. He thought that should be pointed out to the County Council, and that if possible the examination should be made by the veterinary inspector, and so avoid unnecessary delay.

The PRESIDENT said that point could be got over by their delaying their examination.

The SECRETARY said he was opposed to leaving the bacteriological examination in the hands of the medical officer of health. He felt that if, in the first instance that course was taken, what would it be under the Milk and Dairies Bill! It was an encroachment on the duties of a veterinary inspector under the Order, and if they allowed an encroachment without a protest, things would go from bad to worse under the Milk Bill. He knew that the feeling at the National Society was that that was a matter that should be stood up for and stood up for strongly. The feeling on that point in the north of England was very strong. Kent was about the only county that had set the example so far of deleting this particular business from their duty, and he thought they should strongly protest.

Mr. DIXON said if they allowed that to pass without a protest the boroughs would follow the action of the County Council. He had met the Margate Council and he was going to meet the Ramsgate Council on the following Thursday, and they would be guided in a large measure by the County Council's action. He did not want it to be a protest to the County Council of any loss of fees, because it was not a pecuniary matter, but he felt that even if they did not succeed in their application it should go forth that they had protested. He moved that a protest be made to the County Council.

Mr. HOGGEN seconded, and the motion was carried unanimously.

The fees suggested by the National Society were then discussed, and the meeting agreed that the following scale based on that of the National Association, with additions suggested by the schedule sent by the Clerk to the County Council should be forwarded to that body forthwith :—

*Scale of Fees applied for under Schedule sent by Kent County Council.*

	£	s.	d.
1. Clinical examinations :			
(a) For first animal	10	6	
(b) For each animal after the first examined on the same premises	1	0	
Plus mileage at rate of 1/- mile one way.			
2. Report of above examination	1	0	
3. Obtaining owner's written consent to test, no charge.			
4. For applying Tuberculin Test, to include all subsequent visits to register temperatures, etc., on same premises for four animals or under that number	2	2	0
If over four animals an additional (per animal)	5	0	
Plus mileage as above for each necessary journey made. (Tuberculin to be supplied free by the Kent C.C.)			
5. Taking samples included in item 1, no charge, unless special visits have to be made, then as per 1 (a) and (b).			
6. Valuation of animals per head	5	0	
7. Certificates of valuation, each	1	0	
8. Post-mortem examinations for each with mileage as shown and slaughterman's charges added	10	6	
9. Report of post-mortem examination	1	0	
10. Certificates to Local Authority and owner	1	0	
11. For notices served under Articles 9, 10, and 11 of this Order, per notice	1	0	
12. Other necessary expenses incurred as per voucher.			

THE GENERAL MEETING.

This followed the meeting of veterinary inspectors. Mr. James Crowhurst, Canterbury, presided.

The minutes of the previous meeting were taken as read and were confirmed.

The HON. SECRETARY reported that he had received letters of inability to be present from Professor Woodbridge, Messrs. J. Todd, Worthing; Gregory Crowhurst, Greenwich; W. A. Clifford, T. H. Tranter, R. A. Thrale, J. Washford, Romney; A. W. Reid, N. Almond, C. Morgan, H. Hayward Jeffries, J. Cecil Munby, J. B. Martin, D. Pugh, J. Bell, Catford; E. M. Perry, H. K. Roberts, Bexley; T. S. Price, Arnold Spicer, Oxted; Arthur Whicher, and others.

*Vote of Condolence.* Mr. TOOPE referred to the death of Mr. Richard Roberts, of Tunbridge Wells, and expressed his great sorrow with the family in their loss. He said he had probably known Mr. Roberts as long as anyone in the room, Mr. Roberts having proposed him as a member of the Yorkshire Veterinary Medical Society thirty years ago, when they often met. To know Mr. Roberts was to love him, and he (Mr. Toope) felt his loss very much.

Mr. T. A. HUBAND said he had known Mr. Roberts for many years and there could only be one opinion of him. He very much wished to associate himself with the remarks that had fallen from their secretary.

Mr. PERCY GREGORY, Tonbridge, said as a neighbouring practitioner he constantly came in contact with Mr. Roberts, and he could say that no finer example of their profession ever lived. He always found him absolutely courteous and conscientious. He was sure the profession would greatly miss such a gentleman. He begged to move a vote of condolence to the family of Mr. Roberts in their great bereavement.

Mr. T. HOGGEN, Ash, seconded and the motion was carried in silence, all the members standing.



The following letter was read :—

"Dear Mr. Toope.—With much sorrow I must inform you of my father's death which occurred yesterday rather suddenly.

You will take this not only as a personal communication but as an official one to the society. He was looking forward to being with you to-morrow.—Yours sincerely,  
CHARLES ROBERTS."

Mr. J. M. RICHARDSON proposed that the Association be represented at the funeral and that they send a wreath.

This was unanimously agreed to and Mr. Toope agreed to represent the Association at the funeral on the following day. He would also be representing the National Veterinary Association.

*New Members.* The following new members were elected.—Messrs. E. W. MORRIS, Uckfield; J. BASIL BUXTON, D.V.H., Herne Hill; J. B. DIER, East Grinstead; FRANK ROBERTS, Dartford; W. R. EMERY, Guildford; H. V. DIER, Mayfield; FRANK WARREN, Hadlow; and D. R. CHALMERS, Tunbridge Wells.

*Finance.* The SECRETARY presented the audited balance sheet for the past year, which showed that the receipts had amounted to £30 9s., and the expenditure to £23 6s. 8d., leaving a balance in hand of £7 2s. 4d. Mr. Toope reported that there had been four general meetings and three committee meetings during the year ending January 15th. There had been a great deal of printing, and books had to be purchased, which had made the expenditure somewhat heavy. With the amount outstanding there was a nominal balance of £11 16s. 10d., which he considered was fairly successful for the first year. (Applause.) Postages were very heavy on account of there having been 839 letters and circulars sent out, and he should say of that number more than 450 were written, so they would see that he had had some work. (Hear, hear.)

The PRESIDENT said he had pleasure in bearing testimony to the excellent work done by their Association. He thought it was patent to one and all that their money had been spent most judiciously. Their secretary was most modest and had said little about the work he had done. He (Mr. Crowhurst) thought they owed Mr. Toope a deep debt of gratitude for the hard work he had put in for that Association and for making it such a good going concern. Wherever he went he heard very generous remarks made about the work of their Association, which he believed compared favourably with the work done by any other similar Association in the kingdom. He was glad to think they had met together that day in such large numbers, because it was a testimony to the good work put into the Association all round. He knew that their secretary not only attended their local meetings, but that he had been to meetings at Manchester, Birmingham, London, and elsewhere repeatedly. The work done by Mr. Toope had not been done without a considerable amount of time and labour, including the writing of a very large number of letters. He was sure they were all pleased that they had come out with the balance they had. Mr. Crowhurst proposed that the balance sheet be adopted and that a cordial vote of thanks be given to Mr. Toope for his able conduct as Secretary and Treasurer of that Association. (Applause.)

Mr. HURAND seconded, and in doing so endorsed the President's remarks.

The proposition was carried with acclamation, and Mr. Toope, in acknowledging the compliment, said the work had been to him more or less a labour of love, because he hoped the work of the Association was doing some good for the profession. If he had succeeded in pleasing them he had certainly succeeded in pleasing himself. He thanked the members very much for the

way they had complimented him on his work. He intended to continue as long as he was able to make that Association not only progressive, but the most progressive Association in the kingdom if he possibly could. (Applause.)

#### PRESIDENTIAL ADDRESS.

The PRESIDENT, in his annual address, said he rose with considerable pleasure to make just a few remarks. Sometimes it was well to look back, for from small beginnings sometimes there were big endings. It was a very happy day when he met Mr. Toope on a matter that he wished ventilated, because during their discussion they came to the conclusion that it was very desirable to form an Association locally and try and obtain increased fees that were so urgently needed by the veterinary inspectors of this country. It seemed a very happy occasion, because while their Association had been in existence there had never been a word of discord over their work. He was thankful to say it had gone on from success to success. He knew the Association was appreciated, and if they spoke to any strangers in any other county association they found they pointed with pleasure and pride to the South Eastern Veterinary Association, and to the results it had attained. They had banded together, and they worked on business lines. He wished he could say the same for the Government of this country. (Laughter.) In France, Germany, Belgium, and Denmark they found veterinary surgeons better appreciated, and they received more help than they did in this country. If they looked back they would see that the work accomplished by their profession was not a small one. He remembered the inception of veterinary inspectors very well indeed. It began in 1865, which was the year of the cattle plague. Later they were dealing with pleuro-pneumonia. They set themselves anxiously to work on the extermination of those two diseases, and he would like to say if the Government of this country had placed that confidence in the profession, of which it was deserving, their profession would have saved the country many millions of money. He remembered distinctly when there were only sixteen animals affected with cattle plague in the County of Kent. Then the Government was approached in the most earnest manner to stamp it out. Local agriculturists tried to stamp out the plague, but it was not to be, and the Government allowed the disease to run rampant over the country before they moved. He was sorry that that seemed the general plan in the past, not only with cattle plague but with foot-and-mouth disease. With regard to swine fever, he remembered the time when one did not meet with a case anywhere. It had spread and extended itself all over the country, but he believed it would not have done so if the Government had adopted a different scheme. By displacing the veterinary inspectors by the lay inspectors the Government had only added fuel to the fire, and their efforts to stamp out the disease had been futile, while the cost to the country had been enormous. He had persistently approached and asked the Government to reinstate the veterinary inspectors in their old position to deal with swine fever to the exclusion of the lay inspectors, but he had been misunderstood or it had been thought he was pushing too hard. He hoped all the members in that room would try to put before the authorities that they were not on the right lines to exterminate swine fever. As their friend Mr. Dixon had said that afternoon, it was not a case of only pounds, shillings, and pence. They felt a pride in their work, and they would have done better if the Government had trusted them better.

The International Veterinary Congress was going to meet in England, and they had to appeal to the poor profession for funds, because the Government

was only going to give the delegates a luncheon, and that seemed a paltry thing compared with Foreign Governments, who put down considerable sums of money to aid the Congress. If the Government had trusted the profession more and had listened to them more in the past they would not have allowed many diseases to have run rampant over the country. The steps that were now being taken ought to have been taken up years ago and the Government ought not to have waited until tubercular disease had become so prevalent among stock. They all remembered when the shorthorn herds were of enormous value in this country, but now there was this terrible scourge of tuberculosis amongst them, and no one knew to what extent the injury was.

With regard to horses, we were proud of our position as breeders of thoroughbred stock, and no country in the world could compete with us, and foreign countries had to come here from time to time to keep up the stamina of their horses.

The Tuberculosis Order was going to bring a considerable amount of work for the veterinary surgeon, but he hoped they would enter upon the work banded together in order to obtain the rights that were due to them. (Hear, hear.) He wished to refer them to *The Veterinary Record* of May 25th, 1912, when their Association was first formed. At their first meeting they brought before the Association matters that were of considerable importance to the veterinary surgeon. There was the question of the inspectors' fees and there was the question of the manner in which the Board of Agriculture treated the profession by supplanting the practical and competent man by men who really knew nothing about what they were doing. Now they had this important measure the Tuberculosis Order to carry out. In carrying that out their one aim was to stop the spread of the disease throughout the country through the agency of the milk supply to the human subject.

In conclusion, Mr. Crowhurst thanked the members for their kind attention and for the support they had given to the Association. He hoped they would all be spared to meet again, and that the Association would make considerable progress in the future.

Mr. E. LYNE DIXON said as the proposer of Mr. James Crowhurst's election as President of the Association for a second year he wished to thank him for the very terse and useful remarks he had made. He trusted Mr. Crowhurst would have a very successful and happy year of office.

Mr. T. HOGGEN said as the seconder of Mr. Crowhurst's re-election he wished to thank him for his address and the way he had conducted the meetings of the Association.

The proposition was carried unanimously, and Mr. Crowhurst briefly acknowledged the compliment.

#### INSURANCE FEES.

The SECRETARY said they would remember that the question of fees received from Insurance Companies for examining animals was referred to the National Association. A committee was formed to deal with the matter, and it was with some amount of pleasure that he was able to report that the committee had recommended that the scale of fees that they in the South Eastern Association drew up should be presented to the managers of the various insurance societies, with a view to the obtaining of a better fee than in the past for examining animals for insurance. Owing to his being so busy, and he was speaking now as the Secretary to the Southern Branch of the National Society, that notification had not been sent out, but he hoped to send it out that week. It was proposed to ask the managers of the companies to meet the National

Society's committee, and to try to come to some satisfactory arrangement with regard to the fees paid in future.

THE RELATIONSHIP BETWEEN THE BOARD OF AGRICULTURE AND THE VETERINARY PRACTITIONER—by Mr. E. LYNE DIXON. (Read at the meeting at Canterbury, on Jan. 15).

#### DISCUSSION.

Mr. T. A. HUBAND said with regard to Mr. Dixon's paper, he did not think there was much room for criticism, but some of the statements made, he thought they would have some difficulty in entirely agreeing with. Mr. Dixon commenced by asking them to associate themselves with him in offering congratulations to Sir Stewart Stockman, the chief veterinary officer of the Board of Agriculture. He (Mr. Huband) was sure they all agreed with Mr. Dixon in his remark that Sir Stewart Stockman was a scientist of the first order, and a very excellent member of the profession in every way; but when he remarked that the honour conferred upon Sir Stewart Stockman was the distinguished mark of the King's favour of his meritorious services as chief of his department, he (Mr. Huband) did not think he could agree, because he had in his mind the fact that when Sir Stewart Stockman was appointed some years ago the diseases which they and other officers of the Board had been contending against, namely, swine fever, the number of affected animals was comparatively few—he believed 1817—while at the end of the past year there were nearly four times as many. Therefore he did not think they could congratulate Sir Stewart Stockman so thoroughly as Mr. Dixon wished them to. He thought Sir Stewart Stockman's efforts, as chief veterinary adviser had been a ghastly failure in this particular disease. They could not get away from facts, and those who read the evidence that the chief gave at the departmental inquiry could, he thought, only come to the conclusion that he did not follow the course his predecessors, many of whom he (Mr. Huband) was acquainted with, adopted of recommending the drastic measures that alone could be successful in connection with disease. In spite of the trouble and expense they were put to, in spite of the annoyance and inconvenience they caused, disease was on the increase. The expenditure was increasing yearly—he believed last year the Board expended a sum of about £60,000. He believed it was stated in the House of Commons that that was the sum appropriated for dealing with disease, and yet in spite of their efforts, disease continued to spread and would continue to spread so long as those half-hearted measures were continued. All his professional life he had known Mr. Dixon and he did not think he had known him to be guilty of sarcasm, otherwise he should have thought he was indulging a little in that. (Laughter). Of course they all agreed that Mr. Dixon had no desire as he said to create friction between the Board of Agriculture and the veterinary profession; they would be quarrelling with their bread and butter if they did. He was sure no one had any wish to act otherwise than with good friendship with the department, but friction sometimes was unavoidable, especially when they had some of those lay inspectors to contend with. Having given instances of extraordinary cases that had come to his notice, Mr. Huband said many years ago he had two of the Board's travelling inspectors down and they were so difficult to deal with, and so very superior, and so short of practical knowledge in his view that he was afraid he lost patience with them, and although ultimately they got the matter settled satisfactorily and although he was acting for the Board himself he did not have any further employment from the Board for some time. When he made inquiries from the head of the Department as to





the reason, he was told there was nothing the matter with his work but that it was feared he had made himself rather unpleasant with the travelling inspectors. That was an instance of how friction would arrive although he was sure all of them would rather avoid it. If the Board would employ practical men, as the President had suggested, men who had had experience in the work and knew what they were talking about and what they were doing, what measures they were adopting, and why they were adopting them, he was sure there would be very much less cause for friction between themselves as a profession and the officers of the Board. He agreed with his friend when he said it was discourteous to be struck off the list without a word of explanation, but the Board were not in the habit of giving explanations. He (Mr. Huband) had not been acting under the Board for some time, but he was told by some of his friends that there was a great improvement in the treatment of them by the Board and he was glad to hear of it. He was sure it was a very good subject to bring forward, and he thanked Mr. Dixon for having done so.

Mr. W. CAUDWELL said with regard to swine fever he noticed in the Board of Agriculture returns that the years 1901-1905 inclusive showed a rapid decline in the number of outbreaks and that the years 1906-1911 inclusive showed a marked increase, so that comparing the old *régime* when the veterinary inspectors dealt with it, with the new *régime*, there did not seem to be any marked progress in the extinction of swine fever. In Surrey, where as a district inspector he happened to know more about the matter, in 1905 there were only four outbreaks, whereas there had been thirty-eight per annum for the six years ensuing. In 1905 they had as their chief inspector Professor Axe, and he believed it was at his instigation that their County Council prevented pigs being brought into Surrey except for breeding purposes, and then they were brought in under licence, every pig brought in for breeding purposes having to be inspected by the district inspector. About the year 1906 that order was revoked, and pigs were now brought in wholesale without any let or hindrance. He remembered a few years ago Bedford was a hot-bed, and that a number of outbreaks he had to investigate came from Bedford.

The PRESIDENT said for a good many years he had a good deal to do with those inspections, and he had seen the work pass through its various phases. Sometimes the Board adopted one measure and would only recognise the disease if they found certain symptoms present, and at another time they said they were satisfied with less than these. Sometimes they adopted isolation, at others slaughter. After narrating experiences he had had with Board of Agriculture inspectors in the past, Mr. Crowhurst said he thought it would be better if the question of detecting swine fever was left in more practical hands, and he believed the results would be better than they had been in the past. Some of the inspectors sent down had been most vindictive when they had an opinion of their own and the local veterinary surgeon had not agreed with them. It was a pity that the work should be carried on in that way, and he was sure it would be much better if it were carried on in a more businesslike manner.

The SECRETARY said like their President, he believed if that matter of swine fever had been left in the hands of the local veterinary inspector that it would have been stamped out long before this time. He had known of several cases in his own district where pigs suffering from other diseases had been declared to have swine fever, while those which he knew to have swine fever had been declared not to have swine fever.

Mr. DIXON said the paper he wrote was with a specific object, but the discussion that day had been poor indeed. He brought the matter forward in order

to put the veterinary practitioner in a proper position with the Board of Agriculture, but if his few remarks had not been read he should like Mr. Toope to read them to the meeting so that they could have a discussion on the subject as he intended.

The SECRETARY then read Mr. Dixon's paper.

Mr. CAUDWELL said he considered Mr. Dixon's paper a very good one. Mr. Dixon had made out a very good case for the inspectors throughout the country to get their positions reinstated. He thought the suggestion might go from that Society to the newly formed Association to take up the matter, and ask them to send a deputation to the Board of Agriculture to see whether their positions could not be re-instated.

Mr. T. HOGGEN said he quite endorsed Mr. Dixon's address with reference to the way the Board of Agriculture treated them. For some years he (Mr. Hogben) did a good deal of work for the Board and he tried to deal justly between owners and the reporting of disease and seeing the necessary regulations carried out, when suddenly his services were dispensed with, and no reason was given. Since then he had not acted for the Board even in the county district or boroughs where he had been appointed inspector. Where a man had been appointed inspector, he thought all contagious diseases should come under his supervision. Only a week or two ago there was an outbreak of swine fever on some premises in Sandwich. He did not know how many had been slaughtered, and the first he heard of it was when he was sent for by the police to inspect forty-seven animals which had been in contact and which had been slaughtered for the London market. He went and inspected them. He heard that some other inspector had been sent and had had to do with the outbreak. He did not make any enquiry who the inspector was or where he came from, but he thought that should be the work of the inspector appointed for that district. If that were done unnecessary delay would be avoided in many cases, and cases would be dealt with more expeditiously and means would be taken to prevent the spread of the disease that was not done under the present methods of the Board.

Mr. HIBBARD said as inspectors they did not have the result of the Board of Agriculture examinations sent to them. When inspectors of the Board were sent down, the local inspectors never heard anything about the result of the examinations unless they got it through the police to whom they reported or from the owner himself, who told them that the report had been upheld or otherwise. He considered the Board of Agriculture should in every case notify the veterinary inspector or surgeon who reported to them whether it was a case of swine fever or not.

Mr. EMERY said he considered they should receive better treatment than they did from the Board of Agriculture.

The PRESIDENT said at a meeting of the Animals Diseases Committee the chairman made a remark of dissatisfaction at the way the Board were dealing with swine fever, and he said they considered they were not on the right lines in dealing with that matter. It was the course of conduct that Mr. Dixon complained of, that the profession had not been treated in a proper way. It was not conduct that was going to gain the assistance of the profession—which was certainly needed for the suppression of the disease. It was a matter of considerable importance, because a great wastage was going on through that disease being so rampant. He thought if that committee met and discussed that matter and submitted a resolution to the Kent County Council they might get some redress through that body, because he could tell them it was mentioned by one member of the County Council that they seriously contemplated calling on the local practitioner in deal-

ing with that matter. He thought there were some grounds for dissatisfaction at the way the matter was conducted at the present time.

Mr. GREGORY, in instancing a case that came to his notice two years ago, where the Board of Agriculture sent another man in because they did not agree with his opinion, said they were all open to make mistakes, but he supposed the Board of Agriculture men could not make mistakes. (Laughter). The Board of Agriculture treated them altogether in a discourteous and disgraceful manner.

Mr. DIXSON, in replying to the discussion, referred to Mr. Huband's criticisms of Sir Stewart Stockman. He said when he made the remarks he did he thought they would all agree that Sir Stewart Stockman was worth all the eulogy they could give him. He considered Sir Stewart Stockman was the most able chief officer the Department had ever had, and having any grievance against the Board would not lessen Sir Stewart Stockman's abilities in his eyes. He was glad they had come to a decision in that matter. Mr. Caudwell had proposed that it be referred to the National Veterinary Inspectors' Society, and Mr. James Crowhurst had suggested that it be referred to the County Council. He agreed that they should endeavour to get their positions as veterinary inspectors re-instated in local districts and if it were not possible they could draw attention to the matter and get that courtesy which they as veterinary inspectors not only expected, but should have. He should be glad if some gentleman would propose and second that they send a deputation to the Board of Agriculture to get those grievances, which were a disgrace to their profession, rectified.

The SECRETARY said with regard to the veterinary Inspectors Society he did not think it would be meeting again until the National meeting in July. Their President and himself were vice-presidents of that Society, and he was sure one of them would be pleased to bring it forward at the next meeting. The National Society was keen on that matter although up to the present they had only dealt with the Tuberculosis Order. He thought it was a good idea to take up that subject, and he thought Mr. Crowhurst's idea that it go to the County Council was the better suggestion seeing they expressed dissatisfaction with present methods.

Mr. DIXSON seconded Mr. Crowhurst's proposition that the County Council be approached on the subject.

Mr. MORRIS suggested that the Surrey County Council be approached as well as the Kent County Council.

This was agreed to, and on the suggestion of the Secretary, the question was referred to the Association's Standing Committee (the President, the Secretary, Messrs. Dixon, T. F. Hogben, Ebbetts, and C. Crowhurst, Kent), and Messrs. Emery, Caudwell, Morris, and J. B. Dier, for Surrey and Sussex.

The PRESIDENT proposed a vote of thanks to Mr. Dixon for his excellent paper.

Mr. HUBAND, in seconding, said he was sure Mr. Dixon would not misunderstand anything he said in way of criticism. He had nothing but admiration for Sir Stewart Stockman, who was a splendid man, but with regard to the other matter he thought they could not say that his recommendations had been successful, and that was what he wished to say.

The motion was carried with acclamation, and Mr. Dixon briefly replied.

Mr. GREGORY called the meeting's attention to the fact that he had notice recently of an outbreak of foot-and-mouth disease. He received notice, he said, from the Superintendent to go to the outbreak and he went early in the morning and examined eleven animals on the place. As a matter of fact he was five hours, because he could not go anywhere until Mr. Jackson, from the Board of Agriculture came down. He charged a fee

of three guineas and the magistrates signed for it, but he had lately had a letter from Mr. Martin, the accountant, to say that there was nothing in the scale of charges and that he could not allow him more than 5s. and mileage. He thought that was a question they might do a little good over if they ventilated it.

Mr. HOGBEN said when called to a special case they were entitled to a guinea and a guinea for making a microscopical examination. He had charged those fees and they had been passed as far as he knew.

Mr. GREGORY said there was no mention in the scale for the case he had brought before them. It was a special visit but the accountant would not allow it.

The PRESIDENT said if he paid a visit and made a first microscopical examination they allowed him a guinea and mileage, but when he went again to examine the animals, probably ten or twelve animals, to see if they had recovered, and he probably passed three or four of them, the others having not recovered, the only fee they would allow was 5/- and mileage. They would not allow any more.

The SECRETARY said he had a letter that dealt with the question. It read as follows:—

"In Essex we are allowed a fee of 5/3 for every three hours. With a maximum of 21/- for a day of twelve hours, but no travelling expenses. On two occasions when giving expert evidence in prosecutions under the Contagious Diseases (Animals) Act the Bench have awarded me a fee of £1 1s. for each case respectively, but the County Council's Clerk has claimed the right and also insisted on the time basis, with the result I have only received 10/6, the remaining 10/6 being appropriated by the county."

Mr. EBBETTS said the fees paid twenty-five years ago when he qualified in Essex were paid now. There had been no advance during the whole of that time.

Mr. GREGORY said in his case the magistrates signed for him to receive three guineas. It was for a day's work; and the County Council threw out the claim.

#### THE DEMONSTRATION OF THE PRESENCE OF TUBERCLE BACILLI IN MILK.

By J. BASIL BUXTON, M.R.C.V.S.

Mr. President and Gentlemen,—I will endeavour to run over with you, very briefly, the common method of demonstrating microscopically the presence of acid-fast organisms in milk.

I have here a sample of milk which I know to contain acid-fast organisms. If any member has a sample which he would like me to examine, I shall be pleased to do so, if he will let me have it now, in order that I may be able to centrifuge all the samples at one time, and so prevent unnecessary delay. (Mr. Halfhead produced sample). The centrifuge which I am using is one of the turbine pattern, capable of holding 15 cc. in each of its four containers, and of attaining a speed of 3000 revolutions per minute with a sufficient water pressure. A period of from 10 to 15 minutes will be sufficient for our purpose. While the milk is in the centrifuge, perhaps it would not be out of place if I said a word concerning the circumstances under which tubercle bacilli occur in milk.

It was originally believed, and is still maintained by some, that the milk of tuberculous cows is infected only when the udder is affected, and further, that with infection of the udder, the milk should always contain tubercle bacilli. It is as well to dispose of the latter belief at once. It would be exceptional for the milk from a tuberculous udder not to show evidence of the presence of tubercle bacilli at some time or other, provided the disease is allowed to progress, but to imagine that a sample of such milk taken at any time will con-



tain tubercle bacilli is entirely erroneous. One may have to take several samples of milk from a clinically affected udder, before they will be able to demonstrate the presence of tubercle bacilli in the milk.

It has been shown by various investigators that tubercle bacilli may be found in the milk of cows suffering from tuberculosis without affection of the udder, so far as careful examination during life and post mortem could show. Rabinowitch and Kempner showed that when the milk of 15 cows which had reacted to tuberculin, but showed no clinical signs of tuberculosis, was inoculated into guinea pigs, 75 per cent. of the animals yielded milk containing virulent tubercle bacilli. Further, Dr. Mohler, of the Bureau of Animal Industry, Washington, carried out a series of experiments in this connection. He inoculated and fed guinea pigs upon the centrifuged sediment of milk and cream from a number of cows that had reacted to tuberculin, but showed no signs of udder disease clinically. In all 56 cows were used, and of these twelve were found to yield milk containing virulent tubercle bacilli.

As a result of his experiment Mohler arrived at several important conclusions, namely, that tubercle bacilli may be demonstrated in the milk of tuberculous cows, whose udders show no sign of the disease, either macroscopically or microscopically, and in sufficient numbers and of sufficient virulence to produce infection both by ingestion and inoculation. Also that the udders of tuberculous cows may become infected at any moment while the presence of the tubercle bacilli in the milk of tuberculous cows is not constant, but varies from day to day. Similar experiments demonstrating the infectivity of the milk of cows which have reacted to tuberculin, but whose udders are clinically unaffected, have been made by various other authorities, while on the other hand Ostertag and Young in various experiments which they carried out, obtained negative results when such milk was fed to and inoculated into guinea pigs. There seems, therefore, to be some doubt regarding the presence of tubercle bacilli in the milk under such conditions. The discrepancy is, however, not to be wondered at, for it is highly probable that the bacilli only make their appearance in the milk under these circumstances when they are present in the blood or lymph streams, as the result, possibly, of the breaking down of some pre-existing tubercular lesion. In addition, these animals had received recent injections of tuberculin, and it is reasonable to suppose that the reaction caused by this injection had brought about the liberation of tubercle bacilli in the circulation. Further, apart from the three common clinical symptoms of tuberculosis of the udder, viz., enlarged supra-mammary lymphatic gland, indurated quarter, and irregular nodules in the gland substance, there is a fourth form of udder tuberculosis namely, small nodules in the mucous lining of the milk tubes, and these may break down, and their contents be mixed with the milk. In view of the more recent investigations, it is evident that clinical examination alone cannot be relied upon for the detection of udder tuberculosis.

The milk having now been centrifuged for 15 minutes, the glass containers are removed from the centrifuge and placed on one side pending the examination of their contents. The tube under consideration is emptied, the process being completed by turning the tube upside down. It is then held in an upright position in order that the one or two drops of milk left on the sides may run down to the bottom and mix with the sediment. This mixing is completed by agitating the material with a platinum loop which has been previously passed through the flame of a bunsen burner. One loopful of the material to be examined is then transferred to a clean glass slide and is spread out on the surface. This film is then warmed in the bunsen flame in order to dry

and "fix" it. The heating should not be carried beyond a point at which the slide can be tolerated when placed on the back of the hand. When dry, the film is covered with a suitable stain, the one in general use being Ziehl-Neelsen's Carbol-fuchsin (10 cc. saturated alcoholic solution of fuchsin and 90 cc. of a 5 per cent. solution of carbolic acid in water). These organisms are, as you know, "acid-fast," that is, when once the stain has been taken up by them they hold it in spite of an immersion of even 24 hours in a 25 per cent. solution of Sulphuric Acid. Their "acid-fast" character is due to the fact that they possess a peculiar waxy capsule or covering. This waxy substance not only renders them acid-fast, but also makes them hard to stain. For this reason a penetrating stain such as that already mentioned is used, and in addition the slide is gently warmed for about 10 minutes. Care must be taken that the liquid only just steams, and does not boil, otherwise the film will in all probability be spoilt. After heating for the prescribed length of time the stain is poured off and the remaining moisture is removed by placing the slide between two pieces of blotting paper. The slide is then placed in a glass or earthenware vessel containing sufficient 25 per cent. sulphuric acid to just cover the surface of the film, and is left in this solution until on rinsing in water the yellow colour imparted to it by the acid is replaced by a very faint pink tint. The slide may now be washed in water and dried by gently warming and then placing between blotting paper when if examined under a 1-12th in. oil immersion lens, acid-fast organisms, if present, will appear as short dark red rods in a nearly colourless field, or if preferred, previous to the drying process it may be counterstained for a few minutes with methylene blue, in which case the organisms will appear as dark red rods in a blue field. This counterstaining is of use in helping to find the field, which is sometimes a little difficult in a well-decolourised film.

Provided that one has used ordinary precautions in taking the sample of milk (i.e. washed the udder and teats, wiped the hair of the flanks with a damp cloth, taken the sample from the drippings, and used a sterile vessel), thus guarding against the presence of other acid-fast organisms, it is reasonable to suppose that acid-fast organisms in the prepared film are tubercle bacilli. There appears to be some difference of opinion as to whether the sample of milk should be taken in the middle of the process of milking or from the strippings. The consensus of opinion is the latter taken from a tuberculous quarter is more likely to contain tubercle bacilli than the former. In any case the "fore milk" must not be used, since this always contains numbers of organisms which have migrated a short distance up the teat canal.

The specimens which I have here may be of some interest. The first are the lungs, livers and spleens of guinea pigs infected with tuberculosis by the intraperitoneal injection of milk containing tubercle bacilli. These guinea pigs were killed four to six weeks after injection and show well marked miliary tuberculosis. The other specimen is the body of a guinea pig which was infected with tuberculous milk six weeks ago, and which received last night an injection of 3 cc. of tuberculin and was found dead this morning. This animal is of particular interest because it shows quite nicely the lesions characteristic of the Koch method of standardising tuberculin. Around each tuberculous nodule there is a very marked zone of inflammation in both the liver and lungs, while the spleen is greatly enlarged, and there is marked congestion of the peritoneum around the seat of injection.

On the call of the Secretary a hearty vote of thanks was accorded to Mr. Buxton for the trouble he had taken, to which he briefly responded.

THOS. C. TOOPER, Hon. Sec.



## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended May 17	11		11				2	3	57	122	3	51	724
Corresponding week in	1912 11		14				2	4	29	55		79	805
	1911 17		18				4	9			2	70	640
	1910	33	40				6	20			2	37	553
Total for 20 weeks, 1913	262		283				67	213	1387	2868	118	877	12619
Corresponding period in	1912 425		489				67	145	1877	4207	159	1341	16860
	1911 392		482		1	18	82	234			296	933	10041
	1910	620	764				146	360			307	483	4496

† Counties affected, animals attacked: Durham 1, Lanark 2.

Board of Agriculture and Fisheries, May 20, 1913.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
IRELAND. Week ended May 17	...	...	...	...	...	...	...	...	...	...	2	11	1
Corresponding Week in	1912 ...	1	1	...	...	...	...	...	...	...	2	6	74
	1911 ...	...	...	...	...	...	...	...	...	...	3	2	4
	1910 ...	...	...	...	...	...	...	...	...	...	8	5	12
Total for 20 weeks, 1913	...	...	...	...	...	...	...	...	84	278	62	372	
Corresponding period in	1912 ...	2	2	...	...	...	...	...	37	249	104	1002	
	1911 ...	5	5	...	...	...	...	...	38	231	49	816	
	1910 ...	4	6	...	...	...	...	...	33	320	36	891	

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 19, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## ELECTION ADDRESSES.

*To the Fellows and Members of the  
Royal College of Veterinary Surgeons*

Gentlemen,

My term of office as one of your representatives is about to expire, and the Lancashire Veterinary Medical Association has done me the honour of again nominating me as a candidate at the forthcoming election of Members of Council.

May I once more venture to solicit your sympathy and support. It has been my proud privilege to serve you on the Council for the past sixteen years, during that time I have regularly attended the deliberations of the Council and Committee meetings, and I think I may claim to have a fair knowledge of the work and the requirements of my professional brethren.

My views on veterinary topics may be briefly summarised as follows: I am a staunch supporter of the Veterinary Surgeons Act Amendment Bill now before Parliament, and I hope the day is not far distant when it will be entered upon the Statute Book and become law, such I am sure will be in the highest interests of justice and equity, and will prove a boon and a blessing to every member of the profession.

I am in favour of all progressive measures that have a tendency to increase our prestige in the eyes of the public, and especially any measure or Act that will protect the community against fraudulent quacks and quackery. The profession at the present time is performing work of great National importance, and the Council in its efforts to maintain a high standard of veterinary education is worthy of every encouragement and support.

I am of opinion the time has now arrived, and the need is daily becoming more patent, for the appointment of Veterinary Officers of Health, men highly trained in scientific research and laboratory work to cope with present day requirements.

In conclusion may I say, should you again honour me with a seat on the Council it will be my constant aim and earnest endeavour to uphold and maintain the honour and dignity of our profession.—I remain, gentlemen, your obedient servant,

JOSEPH H. CARTER.

Burnley, May 21st.

*To the Fellows and Members of the  
Royal College of Veterinary Surgeons.*

Gentlemen,

Having again been adopted by the Lancashire, Yorkshire, Eastern Counties, and Liverpool University Veterinary Medical Societies as one of their candidates for election to the Council of the

R.C.V.S., I have pleasure in soliciting your votes. As heretofore, I am an ardent supporter of the Veterinary Surgeons Bill now before Parliament, and sincerely hope it may soon become an Act.

I again emphasise the advisability of retaining the "one portal system."

The relationship of the Board of Agriculture to the general practitioner has improved during the past twelve months and present indications point to a further favourable result. All efforts in this direction would have my earnest support.

The public through County and other councils is appreciating to a greater extent than hitherto the influence of the veterinarian as a Public Health Officer. All movements in the view to producing the man required will have my keen support.

My earnest desire is to help forward all movements in the direction of increasing our public usefulness and protecting our professional status.

Should you do me the honour of returning me to Council, you may rely on my devoting the time necessary for the duties involved.—Yours faithfully,  
W. PACKMAN.

The Wyldes, Bury. May 10.

#### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, May 16.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

G. H. Bishop to be Lieut. Dated April 25.

May 20.

REGULAR FORCES. ARMY VETERINARY CORPS.

The following are seconded for employment with the Egyptian Army:—

Capt. J. A. Bosley. Dated February 23.

Lieut. W. F. L. Bright. Dated March 19.

#### Personal.

Mrs. RICHARD ROBERTS and family, Tunbridge Wells, desire to return thanks for the many kind expressions of sympathy shown to them in their recent bereavement.

#### CORRESPONDENCE.

##### THE TUBERCULOSIS ORDER.

Sir,

In response to your request for information as to how each district is working the Act.

At a special meeting recently convened at the county town of this county, the Diseases of Animals Committee decided to allow their Veterinary Inspectors appointed under the Diseases of Animals Act (1) to make their own microscopical examination of suspected materials if they wished; or (2) to send the suspected material to any scientific institution they wished, in this case they would have to pay the fee incurred themselves; or (3) they could send the material to the county laboratory for the Medical Officer of Health to examine free of charge if they wished.

Formerly it was proposed that the M.O.H. should make the diagnosis, but owing to a vigorous protest from the resident F.R.C.V.S. who plainly told the Committee

that the veterinary profession were determined not to have any interference from the medical profession the committee decided, and very wisely, too, on the preceding course, as suggested to them by the F.R.C.V.S.

There is every indication that the Act will now be worked in complete harmony in this county, and will be a success.—Yours, etc.

"HAMPSHIRE COUNTY."

Dear Sir,

Re your Editorial inquiring about the working of the Tuberculosis Order—the enclosed cutting will show that practically nothing is being done in Warwickshire—in fact inspectors have been led to understand that the County Council refused to work the Order. In the adjoining county of Staffordshire, inspectors have not even been appointed to inspect cattle markets and at least at one large sale there is not even a resident inspector and no inspector is present at the sales to exercise his powers on his own initiative—also the inspectors in this county have received no instructions whatever re working the Order from headquarters.

Perhaps the Board of Agriculture will take steps to see that the Order is properly carried out by the local authorities and that inspectors are appointed to be present at cattle markets on behalf of the local authorities.—Yours, etc.,  
INSPECTOR.

##### TUBERCULOSIS IN CATTLE.

"An important report was presented by the Executive Committee as to putting in force Mr. Runciman's scheme for the stamping out of tuberculosis in cattle. It was estimated there were 120,000 head of cattle in the county, and it was presumed that a large percentage were more or less affected with tuberculosis. It was believed the cost of slaughtering and inspection in Warwickshire would be £10,000 a year, towards which only about £1,000 would be available from the Treasury grant. This would involve an immediate increase of a penny in the pound in the rates. The committee thought Mr. Runciman was too optimistic about stamping out the disease in five years, and that as a pure milk supply was mainly a requirement of the urban as opposed to the rural population, the cost of stamping out the disease shall fall mainly upon the Imperial Exchequer. The committee was not prepared to take the responsibility of administering the order without definite instructions from the Council.

It was decided to spend £1,000 only on the administration of the order, but the Council expressed the opinion that the whole expense ought to be borne by the State."

##### A DISCLAIMER.

Sir,

I have to-day seen an advertisement by Messrs. Davies, Son & Co., wholesale druggists, Derby, in which they say Mr. DeVine, of Birmingham, once used their Tabellac local anæsthetic under the impression he was using something else, and that I remarked that "I have never known a case where the patient has been so absolutely insensible to pain."

I wish to say I have never had any dealing with Messrs. Davies, Son & Co., and that I have to my knowledge never recommended any medicament sold by this firm. Their use of my name has been unauthorised and without my knowledge. I may say I have placed the matter in the hands of my solicitor, but in the meantime I shall be glad if you will find room for this letter.—Yours faithfully,  
BRENNAN DE VINE.

Birmingham, May 21.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1299.

MAY 31, 1913.

VOL. XXV.

## NEXT WEDNESDAY.

All members who can, ought to attend the Annual General Meeting on Wednesday next. It is true that the Council election is devoid of excitement, but the Report and Balance Sheet together will provide ample material for a good discussion. Then, in the evening, there will be the dinner, which both those who have been present at the meeting and those who have visited Epsom should manage to attend. Particulars of the dinner have already been circulated, and it only remains to be added that it promises to be one of the most successful of the many which have been held on the evening of this day. Distinguished guests are expected, a good musical programme has been arranged, and the presence of ladies will add to the pleasure of the reunion. The one thing necessary for a complete success is a good attendance.

## A FEW STATISTICS.

The fact that for some years past we have had a well kept Register enables us to draw some conclusions as to the numerical progress of the profession. The number of our members fluctuates from year to year—the length of each year's obituary list of course has an influence here—but upon the whole the membership shows a slight tendency to increase. The actual numbers for the years 1908 onward to 1913 are respectively 3382, 3329, 3372, 3423, 3417, and 3441. Not so many of these remain at home in private practice as was once the case—the Army, the Colonies, and the Civil Veterinary Service at home and abroad, absorb a far greater proportion of our young men than ever before. On the other hand, the number of "Registered Existing Practitioners" is rapidly declining. From 319 in 1908 they have dwindled to 218 this year; and eight deaths have been reported since the Register was issued. There was a time when the opposition of Registered men seriously hampered us; it can scarcely be said to do so now. These points suggest that a careful comparison of our past and present conditions might justify more hope for the future of private practice than some members feel. The approaching disappearance of the registered practitioner, the present tendency of our members to emigrate, and the rapidly increasing demands of the public services, all combine to counteract the undoubted decline of private practice in this country. It seems possible that, for a good many years to come, the supply of young men entering private practice here may not exceed—perhaps not even quite equal—the demand for them.

## LAMINITIS WITH METASTATIC BLINDNESS IN A HORSE.

Speiser, of Nurnberg, records the case of a chestnut gelding, twelve years old, which had been in the possession of his owners for six years without previous illness. He came under treatment on February 9 last, then showing complete loss of appetite, a temperature of 103.6 F., and 86 heartbeats and 31 respirations per minute. The conjunctiva were dirty orange-red, the expression was fixed and anxious; the respiration was superficial and painful, but showed no other special feature. The intestinal movements were active, and the horse was sweating. He could only be moved with great difficulty, trying to lift his feet as little as possible from the ground. The muscles of the hind-quarters were hard and tense, and they seemed—so far as the great pain in the feet permitted this point to be ascertained—to be painful when energetically palpated.

The history was that the horse had suffered three days before from an intestinal catarrh with dirty stinking diarrhoea, and had not then undergone veterinary treatment.

Speiser ordered 80 grammes of aceto-salicylic acid to be given four times daily, the shoes to be removed, and cold packings to be applied to the feet.

This treatment is often successful in slight and moderately severe cases of laminitis, and Speiser thought the horse too weak for phlebotomy. It was found impossible to remove the hind shoes.

Next day the condition was unaltered. The thoracic organs were normal, the appetite was bad, and thirst was intense. The horse sweated violently and did not lie down.

The day after (February 11) Speiser was told on arriving that the horse had become blind during the night, and, to his great astonishment, he found that this was true. The pupils were dilated to the maximum, and showed reaction to artificial illumination. On the other hand, neither photophobia nor lachrymation were present. Seen from a distance, the eyes had a greenish lustre. The aqueous humour was very turbid from the presence of flaky exudate, and the case appeared very similar to a severe one of periodic ophthalmia, except that the pupils, instead of being contracted as in that disease, were dilated.

From the absence of photophobia and lachrymation, the idea of an affection of the whole uveal tract (irido-cyclo-choroiditis) could not be accepted, but the marked green lustre indicated an opaque condition of the crystalline lens. Speiser did not attempt ophthalmoscopic examination of the back



of the eye, on account of the great turbidity of the transparent media. But all the demeanour of the horse when examined—the absence of reaction to light and to threatening movements of the hand, and the behaviour when food was held before the animal—showed that both eyes were completely blind. It was thus evident that the retina and optic nerve must also be involved in the morbid process.

Möller, in his *Augenheilkunde* (page 70, 3rd edition) describes a case of idiopathic iritis in the horse which existed almost coincidentally with muscular rheumatism. In many points the symptoms of this case show a great similarity to those of the one just recorded, but in Möller's case the background of the eye was not implicated in the process.

Unfortunately, Speiser could not follow the progress of the case. On account of deterioration in the general condition and increase of the pedal and muscular pains, the horse was slaughtered the day after blindness set in. Speiser says nothing of any post-mortem examination.

In conclusion, Speiser refers to the question of differential diagnosis, especially with regard to the possibility of influenza. He mentions the latter disease in particular, partly because of the variety of its complications, and partly because during 1912 and 1911 he treated a great number of cases of influenza with conspicuous participation of the ocular and locomotor apparatus in the symptoms. However, the absence of photophobia, of any affection of the conjunctiva, and of cedemas of the skin and limbs, all negative any connection of influenza with the case. So also does the fact that five other horses were standing in the same stable, and no other cases of illness appeared.

Speiser regards the laminitis as an "intoxication-laminitis," and remarks that the connection between the previous intestinal catarrh and the laminitis is easily explained. He thinks that by appropriate treatment (disinfection of the intestinal tract) the generalisation of the disease might perhaps have been averted.—(*Münchener Tier. Woch.*)

#### HÆMATURIA IN A HORSE.

Speiser, of Nürnberg, records the following unusual case. The subject was a brown gelding, eighteen years old, the property of a coal firm. He was said to have been thirteen years in the possession of the firm, and never to have had an illness till the day of this attack, when, in the afternoon, he suddenly showed profuse hæmorrhages from the urinary passages. Speiser first examined him towards evening on the same day.

When examined, the horse appeared in rather poor general condition, as far as nourishment was concerned. The pulse was 48 per minute, and the temperature 101.3° F. In other respects the condition was normal. The horse seemed alert, the appetite was good, and no expressions of pain were evident. The mucous membranes were rose-red. In Speiser's presence the horse passed, without any straining, a small quantity of pure uncoagulated blood. The floor of the stable was widely covered with coagulated blood which had been passed before Speiser's arrival.

Rectal examination showed the bladder to be empty, the size of a fist, not sensitive, and presenting no alterations from the normal. Palpation in the region of the right kidney caused slight evidences of pain.

This condition remained practically unaltered for about eight days. The horse continued to pass blood often, but in smaller quantities. The general condition, and particularly the appetite, remained excellent; and the pulse and temperature returned to the normal.

Under these circumstances Speiser was unable to fix upon an exact diagnosis. The remarkably good general condition seemed to negative the idea of the source of the hæmorrhages being the kidneys. At first Speiser suspected the existence of a carcinomatous or ulcerative process in the bladder, with erosion of a bloodvessel; but the negative results of manipulation of the bladder per rectum, and the absence of straining negated this view. The absence of urine when blood was passed negated a pathological condition of the urethra. The conditions of the horse's work, feeding, and care were inquired into, and nothing to which exception could be taken was found.

At first the treatment consisted of non-irritating diet (oats being excluded from the ration) and the administration of 15 grammes of the fluid extract of hydrastis three times daily. This treatment was carried out for about eight days without any success.

In the second week an alteration appeared. When blood was passed, two portions of the discharged fluid could be distinguished; the first half consisting of urine deeply coloured with red, and the second half of coagulated blood. The urine always contained so much blood that neither chemical nor physical examination of it had any value.

Towards the end of the second week progressive bodily weakness set in, and the conjunctival mucous membranes became very pale; although Speiser restored oats to the diet, and the appetite remained excellent to the last. Having regard to the progress of the case, the age of the horse, and the fact that his limbs were not in the best condition, it was decided to slaughter him. This was done at the end of the second week.

Post-mortem, the urethra, bladder, and ureters showed no lesions. The left kidney was almost doubled in volume. The renal parenchyma was traversed at two places, each of about the breadth of two fingers, by streaky hæmorrhagic infarcts. These places were very moist; and one contained in its centre a cyst the size of a hazel nut, which was filled with urine. Punctiform and very small streaky hæmorrhages were sparingly distributed over the remainder of the renal tissue.

A microscopical examination of the kidneys was not made. Speiser remarks that it is not clear that the anatomical alterations could have induced such persistent hæmorrhages. He suggests that hæmophilia may have been present, but leaves this question undecided. He adds that the blood, when discharged, always coagulated very quickly.—(*Münchener Tier. Woch.*)

### THE TREATMENT OF FOLLICULAR MANGE.

J. Fischer, of Cilli, writing upon this subject (*Tierärztl. Zentralbl.*) says that the mixture recommended by Gmeiner (Ol. carui, ol. ricini, and spirit) fails to cure severe cases of the disease.

In one case in which follicular mange had existed for over a year and had spread over the whole body, Fischer obtained a cure in six weeks by the following method.

The body was thoroughly lathered, and the soap allowed to remain on it till next day, when it was washed off with lukewarm water. The scales and crusts were removed as well as possible by means of brushes, and the contents of the pustules were pressed out. The skin was rubbed with benzine to remove the fat. Then, by means of a hard paintbrush, a mixture of 100 parts of tincture of iodine and 20 parts each of formaldehyde and sulphuric ether was rubbed into the skin. At first this treatment was repeated every four days, and afterwards every seven days. The epithelium became detached in large portions, while the underlying parts became red and swollen. From time to time, also, baths of sulphurated potash were ordered.

The recovery was a complete one, and, six months later, no recurrence had appeared.—(*Münchener Tier. Woch.*)

[This treatment seems likely to be as effective as any, but it is undoubtedly a severe one.—TRANSL.]

W. R. C.

### THE VETERINARY SURGEON AND HIS RELATION TO THE REFRIGERATED MEAT SUPPLY.

By ALEX. CRABB, M.R.C.V.S.

The application of the principles of refrigeration to the preservation of meat has led to the development of a large and important trade, and as a considerable number of members of the veterinary profession are associated, more or less closely, with this industry, I beg to place before you a few of the more important points which, I hope, will be considered of sufficient interest to merit acceptance.

Members of our profession are interested in refrigerated meat, both in the various countries of origin, where they act as meat inspectors at the time of slaughter, and also in this country where the meat comes under their jurisdiction on arrival and on the various markets where it is exposed for sale; being an article of a perishable nature, their decision is oftentimes required as to its condition, fitness for food, etc.

The fact that the consumption of frozen meat is yearly on the increase, combined with the knowledge that our profession is gradually attaining a more prominent part in meat inspection, makes the subject one of increasing interest.

The aspect I wish to deal with mainly is the effect of refrigeration upon meat, with a view to proving that it is a suitable and nutritious article of diet; I also purpose dealing with some of the abnormal conditions found in refrigerated meat which bring it under the notice of the veterinary or other meat inspector in this country. Lastly, I intend touching upon the inspection in the country of origin and discussing the advisability of some uniform and international standard of inspection,

the adoption of which would undoubtedly bring veterinarians of various countries into closer touch with each other and would have other beneficial effects.

Although I am aware that they cannot be classed as veterinary subjects, I would beg to touch lightly upon the magnitude of the refrigerated meat supply, and on the principles and the practice of refrigeration, before dealing with other matters of more direct interest professionally, being of opinion that a study of the former, even if elementary in character, may tend to indicate more clearly the conditions referred to in the later parts of this paper.

### THE GROWTH OF THE REFRIGERATED MEAT INDUSTRY

The development of this industry has been due to three main factors, viz., (1) the undoubted shortage of meat supply in this country; (2) the discovery that refrigeration of meat was a satisfactory method of preservation; and (3) the fact that a large surplus of live stock could be produced in the Southern hemisphere.

The statistics as to supply and demand are somewhat interesting; as far back as 1840, it could be seen that the meat production of the United Kingdom was not equal to the consumption, the population being approximately 26,000,000, the number of cattle 6,618,000 and sheep 24,190,000.

No purely official enumeration of the flocks and herds of the United Kingdom was made until 1867, but from fairly reliable estimates it was calculated that about 1850-60, the average production of meat in the British Isles, with a population of 28,265,000, was 910,000 tons, or at the rate of about 72lbs. per head per annum, and about this time this was being supplemented by small imports of live stock which brought the total amount available up to about 75lbs. per head per year.

In 1882 the internal meat production had risen to about 1,090,000 tons, but meanwhile the population had also increased and then registered 35,606,000, making an available meat ratio of about 61lbs. per head per annum; this, however, was supplemented by imports, still mainly in the form of live cattle and sheep, which brought the available meat supply up to 110lbs. per head.

Although the internal meat production increased from 1860 to 1880, it was greatly at the expense of the flocks and herds of the country; in 1867 there were 46,770,524 cattle, sheep, and pigs in the country; in 1880, these had actually fallen to 42,974,261—undoubtedly a serious aspect—with a rapidly increasing population, and one that showed that the supply was being overtaken by the consumption.

With the growth of the refrigerated meat supplies, this diminution not only ceased, but some lost ground was made up, and in 1910 statistics show that the number of cattle, sheep and pigs in the country was returned at 46,491,251.

These figures, however, show that the available flocks and herds are no greater than in 1867, notwithstanding an increase in the population of about 15,000,000 people, and if one takes the figures of 1880 as indicating a shortage of about 40 per cent., it may safely be assumed that, but for the arrival of refrigerated meat, this country would have experienced a decided shortage.

The live cattle and sheep which at one time were imported to augment the local supply are, owing to increased demand in their country of origin, no longer available.

Fortunately for the meat supply of the United Kingdom, the vast territories of the Southern Hemisphere are able to fill the deficiency, and in them are large and increasing flocks and herds from which can be drawn practically unlimited quantities.



The following figures will show the comparative position:—

We find that in the United Kingdom, with its population of over 45,469,564, there is less than three-quarters of a sheep per head, and less than a quarter of a head of cattle, even on the basis that the whole, including cows, were available for meat. South America, from the Argentine to Patagonia, has a population of 6,489,000, with 29,116,625 cattle and 67,211,000 sheep, or  $4\frac{1}{2}$  head of cattle, and over eleven head of sheep per population. Australia, with a population of 4,422,000 has 11,039,368 head of cattle and 91,661,401 sheep, or  $2\frac{1}{2}$  head of cattle and 27 sheep per population. New Zealand, with a population of 1,020,713, has 1,773,326 cattle, 24,269,622 sheep, or  $1\frac{3}{4}$  head of cattle and 24 sheep per head of population.

To summarise and contrast these figures, we have in the United Kingdom 45,500,000 people, 11,697,592 cattle, 31,245,836 sheep, i.e.  $\frac{1}{2}$  head of cattle and  $\frac{1}{4}$  sheep per head of population, while in the three countries of the Southern Hemisphere we have 11,931,000 people, 41,992,317 cattle, 183,142,923 sheep, i.e.  $3\frac{1}{2}$  head of cattle,  $15\frac{1}{2}$  sheep per head of population, or fourteen times the quantity of cattle and 20 as many sheep, on the population basis, as are to be found in the United Kingdom.

The foregoing indicates the shortage in this country and the means of supplying the deficiency, and the following particulars will show the steadily increasing demand which has existed in this country for refrigerated meat since its introduction.

In 1880 the imports consisted of 400 carcasses of mutton and about 477,000 quarters of beef; fifteen years later the imports had reached 5,000,000 carcasses of mutton and lamb, and about 1,400,000 quarters of beef; the increase still continues, and in 1912 the figures were over 12,000,000 carcasses of lamb and mutton and almost 5,000,000 quarters of beef.

**The Principles and Practice of Refrigeration.**—Refrigerated meat may be divided into two main classes, viz., "Chilled" and "Frozen"; in the first, the meat is not solidified but is preserved at a temperature of about 29° to 30° Fahr., while in the case of the latter, it is kept from shortly after slaughter until the time of retail sale at a temperature of about 10° to 15° Fahr.

Most of the meat imported into this country is "Frozen," the supply of "Chilled" meat coming almost exclusively from South America, and that only in the form of quarters of beef; the chilling process cannot satisfactorily be applied to mutton as the fat invariably becomes much discoloured, while in the case of beef from Australia and New Zealand, economic reasons would prevent development of imports of this class, mainly on account of the extra room taken on board ship, chilled meat having to be hung up in the ship's hold with sufficient space round it to allow of free circulation of cool air.

Considerable difficulty was at one time experienced in the carrying of meat at the higher temperatures, with the result that on arrival here considerable quantities of meat were found to be unfit for food on account of the presence of moulds, decomposition, rancidity, etc., and had to be condemned. Some years ago, however, the "Linley" system came into use with good results; by this system a certain amount of Formaldehyde vapour is circulated through the cooled chambers both before and after filling with meat, and then at regular intervals, the air is dried and purified by being circulated over Chloride of Calcium and then over discs of lead moistened with Sulphuric Acid; one ounce of commercial Formalin is used for each 100 cubic feet of air space and this is volatilised at a temperature of about 300° Fahr.

The following is briefly the procedure adopted in the case of "Frozen" meat: the carcasses and quarters are allowed to hang in a "cooling room" for 8 to 12 hours after slaughter, at a temperature of 40° to 50° Fahr.;

the animal heat having thus been removed, they are hung in the freezing chamber, which has been reduced to a temperature of 10° to 20° Fahr. When the chamber is filled, the air is again reduced to about 10° Fahr., at which it is maintained for two or three days in the case of mutton and lamb, and 5 to 6 days in the case of beef; at the end of this time the meat is thoroughly frozen and is hard throughout. The quarters and carcasses are then enveloped in cloth bags and placed in cold stores, also at a temperature of 10° Fahr., where they remain until loaded into the ship.

Conveyance is made from store to ship in insulated vans; the holds of the ships are maintained at a temperature of about 10° Fahr., as also are the stores in this country, where the meat is held until exposed for sale in the various markets.

The methods used to procure the necessary low temperature for the preservation of meat are numerous, but they may be divided into two main classes, those which use air as their working substance and those in which a liquid is alternately vaporised and liquified during the process. The Cold Air System was the first used and, while satisfactory in its results, has been greatly discarded owing to cost; it is, however, still claimed that this system has special merits inasmuch as it is without danger, works without chemicals and is suitable on board ship, as there must necessarily always be a sufficiency of the necessary cooling medium.

In this system, the air is compressed in a cylinder, the heat produced by the compression removed by water circulation and the cooled compressed air allowed to expand in another cylinder, or as it is called a "snow box," and then discharged free into the chamber to be cooled.

In the other system, the principle is similar, but liquid is used instead of air, the liquid being usually either Ammonia or Carbonic acid. Here, of course, the vapourised medium does not enter "free" into the room to be cooled, the whole being circulated in a system of closed tubing, and the agent used over and over again, being compressed and cooled each time after it has done its work in the evaporator.

There are three methods by which the cold produced by this expansion of cooled compressed ammonia or carbonic acid may be applied to the refrigeration of the meat.

In the "direct expansion" method, ammonia is almost invariably used, and the gas is allowed to expand direct into pipes lining the chamber to be cooled.

In the "brine circulation" system, the expansion pipes are immersed in a vat containing a solution of brine (usually Calcium chloride); this, when sufficiently cooled, is pumped through pipes in the chambers.

The third system is one in which the expansion pipes are in a special room (technically termed the "battery") the air of which is brought to a low temperature; continuously flowing over these pipes is a shower of brine, and through this brine, air is driven by means of fans into the various rooms to be cooled.

Each of the systems has its own advocates; the brine circulation is used almost exclusively on ships carrying chilled meat, and also in some cases of those carrying frozen meat. The direct expansion system is only applicable to freezing rooms ashore, and the "battery" system, without the brine showering over the expansion coils is the one most often adopted at sea.

#### THE SUITABILITY OF FROZEN MEAT AS AN ARTICLE OF FOOD.

The growth of the industry shows the acceptability of frozen meat to the consuming public, and expressions of opinion from authoritative sources indicate that it is a suitable article of diet, and among them that of Prof. Ostertag in his handbook of Meat Inspection is emphatic; he states—"Cold is unquestionably the best

method of preserving meat; it causes no alteration in the meat either with regard to taste or nutritive value; on the other hand, it improves the quality of the meat considerably. Under the prolonged action of Sarcocollactic acid, meat acquires an unusually tender and soft character, the true table maturity required by pampered palates. No hygienic scruples, as in the case of the utilisation of chemical materials, can be entertained with regard to the rational application of cold, and, finally, the effectiveness of cold as a preservative for meat, is almost unlimited. As a sample of the incomparable preserving power of cold, we may mention the fact that the Jakutes still feed their dogs on the meat of mammoths which have remained for thousands of years in the ice of the Lena."

Further, in referring to frozen meat as an army supply, and dealing with meat of various sorts which had been frozen for eight to nine months, he states—"When the meat was taken from the freezing rooms and distributed among the troops, it was found that it not only cooked well, but that it possessed a good flavour and could not be distinguished from fresh meat, furnished a good broth and proved to be especially tender and juicy in a roasted condition."

Dr. W. D. Richardson of the United States has also conducted numerous experiments towards proving the effects of refrigeration upon meat and the following was the conclusion arrived at by him as given to the International Congress on Refrigeration in 1908:—"Cold storage appears to be the best method of preservation, inasmuch as it modifies to a less extent appearance and quality of the product than do other methods; that in principle, cold storage inhibits or prevents to a large extent the forces of deterioration, chemical and biochemical, cannot be denied. It is a satisfactory, efficient and safe means of preservation of flesh foods for indefinite periods of time."

In 1910, Dr. H. Martel, of Paris, reporting on the suitability of refrigerated meat, especially for provisioning of the Army, concluded "Frozen and chilled meat has a nutritive value equal, if not superior to fresh meat: it is more digestible by virtue of the maturing which it has undergone, and is particularly useful for victualling an army, navy, large industrial centres, and in general administrations having a large staff."

#### EFFECTS OF REFRIGERATION UPON MEAT.

The foregoing are general conclusions arrived at as the result of investigations of various authorities, but I think it well to look more closely to the actual effects of refrigeration upon meat, in order to adduce proof as to whether or not the process leads to any alterations in the structure or composition of the meat which would detract from its nutritive value or suitability for the food of man—these points, after all, being the main ones for consideration from a public health point of view.

In this connection I would deal especially with "frozen" meat, that is, meat which has been kept at a temperature sufficiently low to cause complete solidification (10 to 15° F.), as distinguished from "chilled," which more closely retains a resemblance to fresh meat.

If any alterations occur, they would be the result of bacterial, chemical, or physical action; chemical changes might be due to, or independent of, bacteria, and physical alterations, while possibly modifying the appearance, might be unimportant as long as they did not induce chemical change.

#### BACTERIAL.

Bacteria are the usual exciting causes of deterioration of meat, and as experiments prove that, while freezing does not necessarily destroy bacteria, it prevents their multiplication, it follows that meat while frozen

is safe from their action, or, to quote from Ostertag—"It appears that bacteria, especially putrefactive bacteria, possess a quite unusual resisting power against low temperatures. This resistance does not in any way militate against the preservative effect of cold. While it is not possible to destroy putrefactive bacteria by cold, we may still prevent their multiplication by means of low temperatures and may keep them in a dormant condition and prevent the development of their proteolytic power."

Assuming that the animal from which the meat was derived was in good health at the time of slaughter, it is usually conceded that the organs and muscles are germ free; of course, prior to freezing, surface contamination, to a greater or lesser extent is inevitable, and then the following questions arise: (1) Can bacteria penetrate into frozen meat, and (2) if present, can they develop and thus injure the meat?

Microscopic examination of properly frozen meat entirely fails to reveal any bacteria below the surface and would contra-indicate their power of penetration. Various experiments have been made in this connection by Dr. Richardson, of U.S.A., and I beg to quote them here: "A tub of water was brought nearly to freezing point in the freezer and then was added three litres of a 10% Wittes peptone solution, which had been allowed to putrefy at a temperature of 2° C.; several beef knuckles were now placed in the tub and the whole allowed to freeze. Thus the surfaces of the beef were in intimate contact with a frozen mass containing immense numbers of putrefactive bacteria; the conditions were ideal for bacterial invasion of the meat, if such were possible at temperatures varying from 9° to 12° C. Up to the present, five months have elapsed, and sections cut perpendicular to the surface show no indication of the power of bacteria to penetrate into frozen meat. Other experiments, along similar lines, such as the introduction of putrefying solution into holes bored in the frozen meat, are in progress, and although they are three months old show no indication of bacterial penetration."

The same investigator has also conducted laboratory experiments to compare fresh with frozen meat in order to determine, by cultural methods, the bacterial contents, and as very few such investigations have been published, and as the results are of interest, I herewith give the details:—

With the usual aseptic precautions, portions of fresh and of frozen beef of varying ages were placed in flasks or tubes of bouillon and incubated at temperatures of 21° and 30° C. To again quote Richardson—"In all cases one flask or tube was contaminated by exposure to the air or otherwise, as a check on the culture medium, and one flask was inoculated with meat taken from the unsterilised outer surface of the piece. These two flasks in all cases showed abundant growth at room temperature, usually in two days. If, after a sufficiently long period, the other flasks (usually eight in number, four from one centimetre below the surface and four from nearer the centre) failed to show growth, they were contaminated by exposure to the air in order to show the possibility of bacterial growth in the medium. In no case under these conditions was there a failure of growth."

The published tables show that, in the case of fresh meat, out of 41 tubes or flasks growth was noted in four at body temperature; with frozen meat 93 days old there was no growth unless from the outer surface of the meat; from that 165 days old there was "a very slowly developing growth in one flask only from interior," and the same from meat 554 days old, while from meat 320 days old, no growth whatever was found; in all, 40 tubes or flasks were used with frozen samples.

The conclusions drawn from these experiments were that "frozen meat, from 93 to 554 days old, is in the same condition bacterially as meat from freshly slaughtered animals; the general distribution of bacteria in frozen meat is disproved. If the cases, where growth is shown, are interpreted as indicating faulty technique, whereby contamination was introduced, then the absence of bacteria in the frozen beef is shown. This is the interpretation put by the writer on the results."

It might be mentioned here that it is the solid condition of the meat and not entirely the lowness of the temperature which inhibits the growth of the bacteria. Another factor which would uphold the contention that bacteria neither penetrates into nor develop in frozen meat is the fact that, on chemical analysis, no increase is found in the amount of Ammoniacal nitrogen, and there would undoubtedly be some increase were there any decomposition present.

It would appear from the foregoing that complete refrigeration prevents any alteration of a bacterial nature from taking place in the meat, and this then limits the possible changes to strictly chemical or physical ones.

#### CHEMICAL.

The purely chemical changes in meat, partially due to enzymes, opens up a large field for investigation, and I do not propose doing much more than giving the general conclusions arrived at by the various investigators.

Richardson has conducted exhaustive analyses of fresh and frozen meat with a view of determining chemical differences; these were made with fresh meat on the one hand, and with frozen meat from 33 to 554 days old on the other—the latter having been previously kept at temperatures of 9° to 12° C.

In all, 12 samples of fresh and 13 of frozen beef were analyzed, and the average results were practically similar, so much so that Richardson's conclusion was as follows:—

"A general inspection of the tables shows very little difference between the analyses of fresh and frozen samples; the variations in the individual fresh samples are hardly greater than would be expected in material of this kind into whose composition so many factors enter, and the differences between maxima and minima in fresh and frozen samples are of the same order. In general, the variations do not tend definitely in one direction in the frozen samples, the Ammoniacal Nitrogen, the coagulable Nitrogen and the albumose Nitrogen figures do not show a progressive tendency to increase or decrease. The largest differences between the analyses of fresh and frozen samples occur in the acidity figures, which are larger on the average by a small amount in the case of the frozen samples, but even here no progressive tendency is shown, and it is possible that the analyses of a larger number of samples would produce agreeing averages in the case of acidity."

Dr. Martel, Veterinary Surgeon, of Paris, has also given this question some consideration, and in 1911 at the Second Congress on Refrigeration, read a paper in which the following appeared:—"Among the fermented products of meat, there exists a sort of trypsin which acts even during life, because the peptone which is found in meat juice does not appear to be all formed after death; if this self-digestion in the meat is prolonged, it makes it tender and easily digested. The action of a cold temperature varies according to the degree of refrigeration attained; it is known that Pepsine does not act below freezing point and that Trypsine acts very slightly at that temperature, especially in an acidulated substance such as meat. When meat is preserved long enough at temperatures below 0° C., the alterations which still take place are not of such a kind as to lessen its nutritive value."

Dr. Rideal, dealing with the same subjects, states: "In the same way, the tenderness and maturing in refrigerated meat is attributable, not only to the imputed action of Sarcocollactic Acid, but to the very gradual and limited work of natural enzymes, of the nature of pepsine and trypsin present in the flesh, which cause a certain amount of predigestion similar to that occurring when fresh meat is kept or "hung" by butchers before sale. This is why refrigerated meat when thawed is usually ready for immediate consumption and does not require keeping."

Dr. Rideal has also carried out experiments to decide whether freezing meat had any effect on its digestibility, in this case fresh and frozen mutton were experimented with as follows; the lean meat, exclusive of fascia, tendons, etc., was passed uncooked through a mincer; 20 grams of the minced meat were digested for one hour at 38° C. with 20 c.c. of a 5 per cent. solution of Pepsine, to which was added 1 c.c. decinormal hydrochloric acid and 50 c.c. distilled water. The experiments were carried out in duplicate and the results obtained are summarised in the following table:—

	Fresh.	Frozen.	Frozen.
Water per cent.	74.25	72.45	71.32
Nitrogen contents of dry meat ...	12.38	11.55	11.39
Percentage of dry meat digested in one hour:			
Exp. No. 1. ...	41.2	37.4	37.2
" 2. ...	43.3	38.6	37.25
Mean	42.25	38.0	37.25

Dr. Rideal summarises as follows:—

"The amount of digestion in these experiments is therefore very nearly the same for each kind of meat, and is proportional to the amount of matter capable of digestion as measured by the quantity of nitrogen existing in each kind. These slight variations in the amount of nitrogen might be due to variations in the amount of fat existing in the samples examined, and would point to the conclusion that the frozen mutton used for these experiments was slightly fatter than the fresh."

A similar experiment was also carried out some years ago by Dr. Bernard Dyer, President of the Society of Analysts, and the results were similar, fresh mutton showing 43.78 per cent. of water and 40.53 per cent. of nutritive matter devoid of moisture, as against 46.17 per cent. of water and 39.37 per cent. nutritive matter in the frozen samples.

It would therefore appear that meat, frozen under proper conditions, is bacterially, chemically, and from a nutritive point of view, similar to that freshly slaughtered.

#### PHYSICAL ALTERATIONS.

There only remains now the physical alterations which take place on account of freezing and the necessary subsequent thawing, but as previously indicated, these are unimportant, as they lead to no chemical or nutritive change.

It is frequently stated that, in consequence of freezing, the muscular fibres are ruptured with the result that, when thawing subsequently takes place, the liquid contents escape, but this is not the case when meat is properly handled. Microscopic examination of frozen meat, after proper thawing, fails to reveal any material difference structurally from what is found in fresh meat; this is mentioned by Dr. Martel, who quotes the experience of Dr. Letulle—"The latter, who has made a close microscopic examination of sections of frozen muscular fibre, has stated that it is perfectly intact, and that neither crystal of ice nor any sort of breaking up of the fibre can be discerned."



Other observers, however, state that freezing does alter the histological constituents of meat, but it is possible that their conclusions were the result of faulty technique; for example, if the section were made while the meat was in a frozen or partially frozen condition, then undoubtedly abnormal appearances would be evident, and the same would apply if the meat were thawed too rapidly.

When meat is frozen, the water, instead of freezing within the cell, freezes outside of it in a state of considerable purity, leaving the muscle fibres isolated and distorted, and if microscopic examination be made while in this condition, one might readily form a wrong conclusion, as the ice areas occupy as much or more space than the compressed muscle fibres. This is practically the same as has been observed in the freezing of plants.

If meat is quickly thawed, the fibres do not seem able to reabsorb the liquid, with the result that a portion of it exudes, but if on the other hand thawing is done slowly, practically the whole of the juice is reabsorbed, and the meat thus resumes the appearance and characters of fresh meat.

In support of the contention that freezing does not result in the rupture of the cellular elements, it may be mentioned that fish, toads and frogs, if frozen in ice and thawed gradually, regain their vitality, that fish frozen in ice and cooled to 15° C. regained vitality when thawed, and that frogs withstood a temperature of 28° C.

I have now dealt with normal conditions, and have endeavoured to prove that when properly handled, refrigerated meat, bacterially, chemically and physically does not materially differ from fresh meat, that the freezing process does not detract from its nutritive value, and that therefore it is a suitable article of food.

(To be continued).

#### WESTERN COUNTIES VETERINARY MEDICAL ASSOCIATION.

The 30th annual meeting was held at the Royal Clarence Hotel, Exeter, on Thursday, the 27th April, when the chair was occupied by the President, Mr. R. J. Collings, of Exeter; others present were Messrs. F. P. Bennett, Paignton; W. H. Bloye and P. G. Bond, Plymouth; E. W. Bovett, Bridgwater; J. Dunstan, Liskeard; G. H. Elder, Taunton; G. H. Gibbings, Tavistock; G. Lansley, Axminster; W. B. Nelder and Wm. Roach, Exeter; P. Penhale and R. G. Linton, Barnstaple; R. E. L. Penhale, Torrington; Wm. Penhale, Holsworthy; W. L. Richardson, Wadebridge; W. P. Stableforth, Colyton; E. J. Thorburn, Crewkerne; H. E. Whitmore, Langport; and Wm. Ascott, Bideford, Hon. Sec.

The minutes of the last meeting were read and confirmed.

Apologies for inability to attend were received from Prof. Hobday, Messrs. A. J. Down, C. H. Gollidge, F. T. Harvey, T. R. Lydford, S. J. Motton, C. C. Parsons, G. Parker Short, E. R. Smythe, and T. J. Vickery.

**Correspondence.** The Hon. Sec. reported that Sir Stewart Stockman had very kindly invited the members of the Association to the Laboratory of the Board of Agriculture for a demonstration of methods of diagnosis, etc., in connection with Epizootic Abortion. It was unanimously resolved that Sir Stewart be heartily thanked for his kind offer of the demonstration, and that same be accepted, at a date quite convenient to himself.

**Royal Sanitary Institute Congress at Leeds.** Letters from the Secretary and Prof. J. Penberthy were read, and Messrs. C. E. Perry, of Bristol; W. P. Stableforth,

of Colyton, and Wm. Ascott, of Bideford, were elected as delegates.

#### FEES OF VETERINARY INSPECTORS.

Further correspondence with Mr. T. C. Toope of the Southern Branch of the National Veterinary Association was read, and it was resolved that the scale of fees recommended by the Council of the Association be submitted to the County Councils of Devon, Cornwall, Somerset, and Dorset.

The scale of fees to veterinary surgeons for service rendered to insurance companies, advocated by the South Eastern Veterinary Association was also approved.

The Hon. Treasurer was empowered to remit the affiliation fees to the National Association.

**10th International Veterinary Congress, London, 1914.** The Hon. Secretary reported, that as directed at the last meeting, he had sent out an appeal for subscriptions to the members of the Association, and remittances were being made to the Hon. Treasurer of the Congress, direct.

**Finance.** The Hon. Treasurer (Mr. P. G. Bond) presented the annual Report and Balance-sheet, and on the motion of Mr. Wm. Penhale, seconded by Mr. Elder, the same was approved and adopted.

#### ELECTION OF OFFICERS.

On the motion of Mr. Bloye, seconded by Mr. G. H. Elder, Mr. C. E. Perry, of Bristol, was unanimously elected President for the ensuing year.

**Vice-Presidents.** Messrs. R. J. Collings, Exeter; W. L. Richardson, Wadebridge; W. P. Stableforth, Colyton; and E. J. Thorburn, Crewkerne, were elected.

**Hon. Treasurer and Hon. Secretary.** Mr. P. G. Bond and Wm. Ascott were re-elected respectively, and each cordially thanked for past services to the Association.

It was resolved that the proposed visit to the laboratory of the Board of Agriculture be treated at the next meeting.

#### THE NEW TUBERCULOSIS ORDER.

Mr. DUNSTAN, in opening the discussion on this matter, read a letter bearing thereon, and also referred to a "leader" in *The Veterinary Record* of March 15th last. He said "The various County Councils are at present quite at sea and yet those bodies will have to take the necessary steps to carry out the Order as and from the 1st May. In my opinion they will only be too glad to be offered assistance, and I propose that each County Council be asked to meet a deputation from the veterinary profession. The term "inspectors" clearly includes veterinary inspectors, but in Cornwall inspectors are not appointed, and similar "Orders" are carried out through the police. I have taken steps to bring this to the notice of the County Council, and inspectors will probably be appointed. Power is given to veterinary inspectors to take samples of milk, etc., for examination by bacteriological methods, but these methods are not clearly defined. Are microscopical examinations intended, or not? or is the tuberculin test to be relied on? At present it seems likely the final diagnosis may pass to the Medical Officers of Health, but we should do our best to prevent this. The day is not far distant when each county will appoint veterinary inspectors, and I hope we shall be able to day to formulate our suggestions to the County Councils.

Mr. GIBBINGS: I think the question of diagnosis will prove one of the greatest difficulties. It is evident that by clause 6 a bacteriological examination is meant, for without it how can you say whether a cow is giving tuberculous milk or not. Even if the udder is not affected a cow may give infected milk. The tuberculin test is not to be allowed without the consent of the

owner. I do not see how the County Councils are going to help us, as we are unable to help ourselves.

Mr. BLOYE: I should like (as an outsider, because I am not an inspector) to say a few words. The new order is a most important one to the profession, and much more is involved than appears on the surface. A most onerous task is imposed, and with all due respect, I think it is absurd to ask an ordinary practitioner to diagnose tubercle from milk. The ordinary medical practitioner of to-day is incompetent to carry out such work, and to be reliable it must be done by a bacteriological specialist. This order is thrust upon us at very short notice, and the only solution to prevent the work slipping out of our hands is to ask the County Councils to appoint whole time veterinary bacteriologists. There would be plenty of work for such men; they could receive and report on all slides. Another solution that presents itself to my mind is to ask the Board of Agriculture to undertake the examinations, but I doubt it would be agreed to, as that body seem to be shifting the responsibility to the County Councils.

Mr. BENNETT: I have much pleasure in supporting Mr. Bloye's remarks. I do not see why the general public should expect so much from our profession, and I think it is absolutely impossible for the general practitioner to undertake the necessary bacteriological examination.

Mr. WHITEMORE: I think the idea of appointing whole time veterinary bacteriologists a good one. I am not clear as to the interpretation of local authorities; are urban district and rural district councils to deal with the matter?

Mr. LANSLEY: I take it the County Council would be the "Local Authority" as defined in the Order.

Mr. DUNSTAN: Cornwall has a special county medical bacteriologist. It has been suggested that the College extensions will help us.

Mr. BOND: Mr. Chairman, I think there is a lot to be done before this matter is settled. The Government intended to provide £600,000, and to divide England into 12 centres; and samples to be sent to these centres to be dealt with by an expert officer in charge, who may be a veterinary bacteriologist or not. If we send a deputation to the Devon County Council, who is going to meet it? Probably the Contagious Diseases Committee, who know little or nothing about the subject. When the question of the tuberculin test was first introduced in the House of Commons, Mr. Balfour said a test could be made for a 1/- or 2/6, which proves my contention that the men who are responsible for this and similar orders are ignorant of the practical working of them. If all suspected material is to be sent to the testing centres, who is going to do all the other work?

Mr. BENNETT: Supposing in the first week in May we are sent to inspect a dairy, what as individuals are we going to do? It is by no means an easy matter. I have to superintend two dairies, and I find this makes considerable work. Also we must remember the butcher follows if we condemn, and will expose our mistakes.

Mr. R. E. L. PENHALE: I travelled up with a member of the Devon County Council and gathered from a conversation with him on the subject that they would be pleased to receive a deputation from our Association, as they do not understand the position created by this Order. They are quite at sea, and do not know the many pitfalls.

Mr. ASCOTT: We are, I think, in the centre of a crisis with regard to contagious diseases, and the manner in which this subject is treated by our profession will either make or mar it. The County Councils are getting pretty tired of the expense attending the working of the Epizootic Abortion Order, and we should endeavour to make our position quite clear. I agree with the idea of sending a deputation, but don't think

we shall succeed in getting a veterinary bacteriologist appointed (we cannot even suggest a man who could undertake the work) and will probably be told to send samples to the County Medical Officer of Health.

Mr. PENHALE: I sympathise with all that has been said by previous speakers. We must make ourselves familiar with the work, and endeavour to tackle the job in a thorough manner, or no doubt the medical profession will step in and take it away from us. My own opinion is that the medical practitioner is not more competent with microscopical work than the veterinary surgeon, and I do not like idea of our having to send our slides to the City analyst. I see the County Council are considering the question of expenses, as each case of abortion is costing the county £5. I think there will be no harm done in sending a deputation to the County Council; we should probably have to meet a doctor or two, who knows less about the subject than we do.

Mr. DUNSTAN: I notice the Order provides for two distinct valuations—first value as a milch cow, and second meat value only.

Mr. GIBBINGS: As a milch cow, might be worth £15, but otherwise £5.

The following were appointed a deputation to endeavour to arrange meetings with the Devon, Somerset, and Cornwall County Councils: Messrs. Perry (President), Bloye, Bond, Dunstan, Elder, Stableforth, and Wm. Ascott.

Mr. BLOYE: I beg to move "That the Board of Agriculture be approached as to the examination of suspected material; or failing their doing so that they be asked to support the appointment of a county veterinary bacteriologist, and that the Royal Veterinary College be asked if they would be willing to undertake the task, and if so, on what terms." Great weight would be attached to any recommendation from the Board of Agriculture."

Mr. DUNSTAN: I have much pleasure in seconding but am afraid there is not time.—The resolution was unanimously agreed to.

On the motion of Mr. Whitemore, seconded by Mr. Bond, a hearty vote of thanks was accorded the retiring President for his services to the Association during his year of office.

Since the above meeting the deputation appointed have met the Contagious Diseases Committee of the Devon County Council, who received them very courteously, and agreed to the scale of fees laid down by the National Association, except that third class railway fares only will be allowed.

WM. ASCOTT, Hon. Sec.

#### Rinderpest in German East Africa.— Conference of Veterinary Surgeons.

The Conference of Government Veterinary Surgeons representing all the British South African States and Dependencies, and British East Africa, Portuguese East Africa, the Mozambique Territory, and the Belgian Congo, opened on Thursday, April 10th in the Municipal Offices, Bulawayo.

Mr. J. M. Sinclair, Chief Veterinary Surgeon of Southern Rhodesia, presided over the deliberations of the Conference; and the following delegates were in attendance:—British East Africa: Mr. R. J. Sturdy; Nyasaland: Mr. G. Garden; Mozambique Territory: H. L. Jones; Portuguese East Africa: Senor J. B. Botelle; Union of South Africa: Mr. C. E. Gray, Mr. William Robertson; Swaziland: Mr. G. H. Elder; Basutoland: Mr. F. Verney; Bechuanaland: Mr. W. H. Chase; Belgian Congo: M. M. Vanraes; Northern Rhodesia: Mr. F. Chambers; Southern Rhodesia (in addition to Mr. J. M. Sinclair), Mr. C. R. Edmonds.

When the members of the Conference assembled, the Mayor (Colonel Baxendale) was present to welcome them, and there was a large and representative gathering of citizens.

The Mayor, in extending a cordial welcome to the delegates, mentioned that this was the first conference of the kind held in Rhodesia. He recalled the decimation caused in Matabeleland by the rinderpest outbreak in 1896. In the year prior to the disease making its appearance there were, he said, something like 300,000 head of cattle—native cattle; two years later there were only 2000 head. Since then the country had gradually retrieved its losses until now the number of native cattle in the country was over 130,000. He mentioned these facts to show how Matabeleland would be affected in the unfortunate event of another outbreak, and to show how imperative it was that they should be fortified to meet the contingency, and how essential it was that there should be concerted action on the part of all the South African Governments. They welcomed the delegates because they realised the importance of the work to the whole of South Africa, and also because they appreciated the especial necessity for a great cattle country like Matabeleland being prepared to combat a terrible scourge of this kind. In conclusion, his worship expressed the hope that the delegates would have an enjoyable time while in Bulawayo, and that the result of their deliberations would be satisfactory and beneficial to the whole of the Sub-Continent.

Mr. SINCLAIR, on behalf of the delegates, thanked the Mayor for his warm words of welcome and the gentlemen who had assembled in such large numbers to witness the opening of the conference. As the Mayor had told them, the object of the meeting was to consider measures for dealing with rinderpest should it unfortunately appear in any of the Provinces and Territories represented there. Most of the delegates had had practical experience in dealing with rinderpest, and were well acquainted with the ravages of what might be called the worst of the bovine scourges. When the disease was destroying herds in this Territory and in the Transvaal in 1896, the Cape Government, they would remember, with the assistance, he believed, of the other South African Governments, obtained the services of the illustrious Koch. After a few months' stay in South Africa, Dr. Koch discovered the bile treatment, and it might be taken as a fact that Dr. Koch laid the foundation for all the work which had since been done in combating rinderpest. Many other observers had followed him and elaborated his work, among whom might be mentioned Kohlstock, Koller, and Turner, Theiler, Watkins-Pitchford, Danyz, Bordet, and their friend—who was with them to-day—Mr. Robertson. The result of the labours of these distinguished scientists were considerable, and he thought he could say that their knowledge of rinderpest to-day was such that the methods of treating the disease by inoculation was very satisfactory—more satisfactory than in regard to any other of the bovine scourges. This Conference had been convened by the High Commissioner to discuss measures for application in the event of the disease breaking out in any of the countries represented.

It could more properly be called a committee meeting than a conference, because the methods devised of combating the disease by serum treatment were so satisfactory. It was rather their business to arrange a plan of campaign. The results of their deliberations would be submitted to their respective Administrations, and on the amount of money provided by the Administrations would depend to a large extent the result of what they did at the conference. Having regard to the importance of the subject, it had been considered advisable to hold the proceedings in private—reports of their proceedings would not appear from day to day in the press. The

reason was obvious; if reports were published daily, it might lead to hasty criticism. He thought, then, the proper procedure was for them to submit their decisions to their respective Governments; and the result would be communicated to the press in due course. At the same time, though the conference was to be held in private, they would be glad to welcome any gentlemen interested in their discussions. There was another point he would like to mention. These conferences were not of every day occurrence in South Africa—it was over four years since the last was held, in Pretoria—and it would be rather a pity to let the opportunity pass of discussing various other subjects, not only of interest to themselves, but of the greatest economic importance to the whole of South Africa. He referred to such diseases as lung-sickness, tuberculosis, and so on. It was therefore proposed that they should discuss these matters when they had completed their deliberations on rinderpest. It was also intended to hold a meeting here of members of the veterinary profession to consider matters of general interest to the profession, particularly the official status of the profession in Africa.

Proceeding, Mr. Sinclair said he wished to emphasise one point. The fact of their holding the Conference in private might suggest the idea that the position in regard to rinderpest was so serious that they feared to take the public into their confidence. Well, he could assure them that was not the case. The position in German East Africa, according to the latest information, was practically the same as it was in December; the disease had not extended further South since the middle of December. He might mention also that arrangements had been made with their German colleagues that they should advise him directly should the disease make any further advance Southwards, and they could rely on any further developments being made known through the medium of the press. He regretted exceedingly that their German East Africa colleagues were not represented there; their recent experiences and observations would have been of the greatest help. It had been arranged that a message conveying the good wishes of the Conference should be sent to the Government Veterinary Surgeons in German East Africa, and that a copy of the proceedings should be forwarded to them.

The business of the conference was then proceeded with.—*The Bulawayo Chronicle*, April 11.

#### Bovine and Human Tuberculosis.

At a meeting of the Berliner medizinische Gesellschaft held shortly before Easter, Professor Orth, formerly a pupil of Virchow's and now his successor, opened a discussion on the etiology of tuberculosis in man. His views, not only in virtue of his position as a pathologist, but by reason of his being chairman of the society, had been eagerly awaited, and were listened to with the greatest interest by the members present. The address was on the importance of the bacillus of bovine tubercle in the production of tuberculosis in man, and in it he strongly emphasized his conviction that, although bovine tuberculosis does not commonly infect the adult, its power to produce tuberculosis in children and infants cannot be denied, and that in consequence a campaign of extermination of the disease in cattle must be our aim in the future. He thus departed from the thesis of Koch's famous pronouncement in London (1901), and maintained that not less than 10 per cent. of all fatal cases of infantile tuberculosis originate from a bovine source, while, according to the estimates of Koller and Wassermann, fully 40 per cent. of cervical gland tubercle and 49 per cent. of intra-abdominal cases are directly due to infected milk. Bendix states that in Germany alone 2,700 bottle fed infants perish annually from

tuberculosis, so that the term "race" disease would hardly be exaggerating the present position. The question of the convertibility of the one bacillus into the other was decided, he claimed, in the positive sense by von Ebor, who in 1912, at a meeting of the Royal Institute of Public Health held in Berlin, announced that he had been able by one or more passages through cattle to produce from adults (36 per cent.) and children (53 per cent.) a virulent bovine bacillus. Professor Orth reminded his hearers that in 1906 he had experimentally shown that a primary local infection with inoculated bacilli could create a heightened, latent susceptibility to future infections, and that under such circumstances pulmonary phthisis was the most usual sequel. That a bovine infection contracted in infancy might play a similar part in the development of the disease in adult man was no unreasonable speculation. Professor Orth expressed the general trend and conclusion of his address in the words, "War against the human bacilli, but war also against the bovine." His views were criticised by Weber, a member of the Imperial Health Commission, which has only recently abandoned Koch's beliefs for views more nearly akin to those of Orth. Weber stated that post-mortem reports and experimental investigations had shown no recognizable parallelism in the incidence of the disease in man and cattle, nor were there any marked differences in the statistics of countries in which cow's milk was not the staple diet of bottle-fed infants and children. Of considerable importance to his argument was the fact that of 280 children who had demonstrably drunk the milk of tuberculous cows, only two, and both of these cases in which the cervical glands were involved, had developed the disease subsequently. Moreover, seven years later, during which time they had been under the direct observation of the Board of Hygiene, not one of the 280 had died of tuberculosis.—*The British Medical Journal*.

#### Poisoning with "Muttar" Vetch.

At Lincoln County Court before His Honour Judge Sir George Sherston Baker, bart., Mr. Colin Campbell, J.P., the well-known Stapleford farmer, sued Messrs. Sheardown, Tibbitts and Co., of Hull, corn merchants, for £100 for breach of warranty, the claim arising out of the death of two of plaintiff's horses and three foals, and the depreciation in value of others, and his contention that this was due to the presence of mutter, and mutter being a poison, in a consignment of Indian peas purchased from the defendant firm.

After the plaintiff and his farm foreman, John Ford, had been heard, George Drury, waggoner, said he always tried to give the horses plenty of food, and cross-examined admitted he did not know the quantity of pea meal that should be given.

Mr. Charles Alfred Nowell, Bassingham, practising as a veterinary surgeon, who was called to examine the horses, said that in his opinion the symptoms he saw in May and July were caused by the foreign food they were eating, and by the presence, of which he had learnt since, of the *lathyrus sativus*.—Cross-examined, he said he performed tracheotomy on one of the mares, but it died two or three months later.—Cross-examined, as to feeding, he admitted he knew nothing about albuminoids.

Mr. Edward Murray, M.R.C.V.S., of Malton, deposed to being called to see the mares in July, and said he was satisfied they were suffering from a definite poison. Having since learnt of the existence of the *lathyrus sativus*, he thought it perfectly clear that the symptoms were due to that. They were not due to overfeeding.—Cross-examining, Mr. Maddocks said that if a man drank a whole bottle of whisky and died of alcoholism,

there was nothing in that to condemn whisky.—Witness agreed, and answering later questions said he formed the opinion that the animals were being poisoned, the poison arising from the food, and advised that the food should be submitted to an expert with a view to arriving at the particular poison.—Re-examined, he was now absolutely certain that the symptoms were caused by the presence of the *lathyrus*.

Professor Woodruff's evidence was taken on commission, as the witness has been appointed to a professorship at Melbourne in botanical pathology. The evidence, read by Mr. Dyer, stated that on visiting plaintiff's farm witness had no difficulty in recognising amongst the peas one particular variety, namely, *lathyrus sativus*, or mutter. He had a sample, about half a pound in weight, of the peas weighed out for him, and found mutter among it to the extent of 13½ per cent. He should certainly not consider it should be put in fodder for horses. It produced paralysis of the nerves of the larynx, shown on exertion. Witness had never had experience of such a case before with a living animal. He had no doubt now that the cause of what he saw was the presence of this mutter. He sent for another sample, and again found mutter present. Mr. Maddocks read his cross-examination, in which the witness stated that mutter was an article of food in India, and was a fattening food.—Re-examined, he had said mutter where present was always dangerous, though fattening. He would not pass it for feeding. In his reference to mutter as an article of food in India, that was after cooking.

Mr. Edward Morrell Holmes, Curator of the Museum of the Pharmaceutical Society, Bloomsbury Square, Fellow of the Linnæan Society, found *lathyrus sativus* to the extent of 40 per cent. in the sample of Indian peas submitted to him by the plaintiff. Witness described the differences in percentage in different samples by explaining that the shape of that pea did not permit it to roll like the ordinary pea. He had known for thirty years that the *lathyrus sativus* had poisonous properties, and would say that unquestionably it was harmful or at least dangerous for man and beast. It was not actually known what the poison was, but no other known drug produced the same effects. He had no reason to doubt the poisonous effects of *lathyrus sativus*. That was an accepted fact in the botanical world. Those effects tended towards paralysis.

Cross-examined by Mr. Maddocks as to the relative values and dangers of food products, witness said the soya bean contained higher fattening properties than mutter, and would not be poisonous. A beef steak was poisonous if one took too much of it. If a small percentage of mutter was taken the results would not be perceptible at first; if taken for a length of time 13 per cent. would be poisonous.

Mr. A. B. Porter, of Messrs. Page and Porter, gave evidence as to the distribution of samples of plaintiff's consignment of peas to various people, and was closely cross-examined as to their whereabouts.

Mr. King, M.R.C.V.S., veterinary surgeon, inspector to the county of Berkshire, said his attention was drawn to the *lathyrus sativus* pea as far back as 1882, some horses then suffering from apparently the same symptoms, and he found they had been having this pea as food. He would state most emphatically that no known drug or food or combination of them could produce the same symptoms. It was very different to overfeeding. He had no hesitation in saying that the loss and illness of these horses was due to their feeding on the *lathyrus sativus*.—Cross-examined, he would say that 15 per cent. was dangerous, and if continued for a long time would be poisonous. His condemnation of it would all depend upon the quantity that was given, and the length of time during which it was administered.

Mr. Alfred Smetham, analytical chemist of over 30 years' experience in Liverpool, and holding an appointment of that character with Royal Lancashire and Cheshire Agricultural Societies, and for the county of Westmoreland, deposed to experience of the *lathyrus sativus* with horses as far back as 1893. A number of the horses of the Bristol tramways died, and a great number of others were ill, and the symptoms were similar to those described in this case. There was an action at law, and as the result, judging from the number of samples received by him for analysis, the importation for a time almost ceased. His investigations since convinced him that if given in a large quantity it was a deadly poison. The sample of plaintiff's peas submitted to him contained 36.08 of *lathyrus sativus*.—Cross-examined, witness said that while there was a doubt as to what the poison was exactly, there was no doubt as to the effects of it. He could not say whether it was an alkaloid, but he thought it proved that it was a cumulative poison. The seriousness of the effects would depend upon how often the *lathyrus sativus* was given; it could be given safely between intervals, but he would not state intervals. In the trade, as contracts were made in Liverpool, if two tons of Indian peas—green peas—were ordered, 15 per cent. of mutter would be accepted, under the contracts, by the rules of the Liverpool Exchange. Witness was official analyst to the corn trade in Liverpool. Any percentage of mutter higher than that would be accepted at an allowance. That applied also in London and Hull. Witness considered that 15 per cent. might cause damage. Indeed, he considered it ought not to be sold, and could not be sold properly under the Acts of Parliament which governed the sale of fertilisers and feeding stuffs. He had reported against *lathyrus sativus* to the Board of Agriculture. That was two years ago, but the Board had taken no steps that he knew of. "They know a good many of my views and take no action," smilingly remarked the witness.

Re-examined by Mr. Dyer, witness said this stuff was not a good horse food, and any food to be a good horse food should be one that could be given without intermission.

Dr. Jno. Augustus Voelcker, M.A. Cambridge University, B.A. London University, consulting chemist to the Royal Agricultural Society of England, was the last witness for the plaintiff. He said that in 1889 he went out to India for the Government of India for the express purpose of inquiring as to the improvement of agriculture in that Empire. He made special inquiries regarding *lathyrus sativus*, and found that in India, all through the country, it was considered a dangerous food for cattle and human beings. In every case in this country that he had investigated since his return, of horses and cattle suffering from paralysis and such other symptoms as described in this case he had found *lathyrus sativus* present. He considered it a deleterious substance, and had done all he could to advise people not to use it in any quantity at all. Feeding with excessive albuminoids would not produce paralysis. In this case, having examined the material sold, he had no doubt that the paralysis was due to feeding on grain containing *lathyrus sativus*. In the sample sent him he found rather over 13 per cent. of it, and would regard that as not a good food for horses, but a risky food.

Cross-examined, witness said he would go lower than even 5 per cent. He would say that even 2 per cent. was risky. His opinion was that the poison was cumulative. He condemned it *in toto* as a material that ought not to be used as a food. It was risky—therefore don't touch it. Under some conditions it might be a good article of diet. In India it was a grain they did not touch unless they were obliged by famine to do it.

Mr. Maddocks, after the luncheon adjournment, opened his defence, and at the outset pointed out that the peas supplied had been used, either for the horses or for the pigs, and therefore had been proved merchantable, so that that portion of plaintiff's case had gone. Proceeding, Mr. Maddocks denied that any such warranty was given as stated by the plaintiff; after hearing the properties of the peas described by Mr. Tibbits, plaintiff said that would make a good horse food, and Mr. Tibbits replied that they did not recommend it for that. Mr. Campbell, however, bought 20 quarters, and not until they came into Court was there one word to suggest that there was any warranty as to the value of the peas for horse food. Mr. Tibbits had given no such warranty and would say so in the box. Mr. Tibbits warned plaintiff against using the peas for horses, as being too heavy a food. Mr. Maddocks pointed out that sellers were not manufacturers very often, and should not be held responsible for the misuse of an article by a buyer, who might employ it for something totally different to what it was intended for. Mr. Campbell had looked at the peas and saw they were different to English peas, but had not chosen to ask what their properties were. The peas had a bad effect on the horses because they were given in too great quantities. Mr. Maddocks proceeded to point out that though caffeine affected the heart, coffee was perfect good, and though tobacco was quite good, an overuse of it was dangerous. He urged that the symptoms of these horses were the result of over-feeding. If plaintiff had asked about the peas and given them in small quantities the horses would have been fattened and benefited. Mr. Smetham and Dr. Voelcker said they would not use mutter at all, but if that was so, if what those witnesses had said was true, still the defendants were not liable, because a certain percentage of mutter was permitted in Indian peas. Mr. Campbell asked for Indian peas; they sold him Indian peas. In the trade Indian peas meant that the person who bought must accept from the person who sold Indian peas with no greater admixture than 15 per cent. of mutter. That was the practice of the trade. If that was not understood by Mr. Campbell, that was not the fault of the seller; that was the trade usage, and, with all respect, the jury must come to that conclusion. If they found there was that proportion, they completed their contract, and what ill effects followed did not concern them. If he fulfilled his contract and forty people died, that did not concern him. The witness Ford had said he had weighed out a certain quantity per horse, and that quantity his own expert had said was twice too much. He (Mr. Maddocks) submitted that the horses had actually been given a good deal more than twice too much.

Mr. Tibbits, of the defendant firm, deposed to the terms of the purchase, and said that later the plaintiff complained that his horses were ill and he blamed the peas. Witness replied that he could take no responsibility, as the horses must have been overfed. Witness had in no way warranted the peas for horses; he had warned them against giving them to horses. They were too rich in albuminoids. At the time he was selling plaintiff the peas he (witness) knew the peas contained *lathyrus sativus*, but did not tell the plaintiff so. He did not believe the *lathyrus sativus* was poisonous.

The evidence of Mr. William Wilson Pietrie, of Ralli Bros., Finsbury Circus, read on commission, was taken. This witness said that 13 per cent. of mutter was quite a moderate proportion. His firm had sold 4,800 tons of Indian peas during the year 1912. He did not know for what purposes they had been used. He had seen muttar cooked and eaten by the natives in India. He knew it had an evil reputation there, bringing on paralysis when used in too large quantities.



Mr. G. W. Heseltine, managing director of J. and A. Scott & Co., Hull, with thirty years' experience of the trade, told His Honour that the trade understood green peas to mean the inclusion of 15 per cent. of mutter. Witness deposed to buying 5,000 quarters of Indian peas, of which he had sold 2,500 quarters to Sheardown, Tibbits & Co. This was the only complaint. Witness took a sample, which was under 15 per cent.

Cross-examined, witness said there was a wider and increasing demand for green peas. Even after hearing what he had heard that day, he still thought mutter harmless.

Mr. Dawson, of Rishworth, Ingleworth, and Loft-house, millers, Hull, with 35 years' experience, gave similar evidence, and said he did not recommend peas of any kind for horses.

Dr. Auld, Professor of Agriculture, F.I.C., F.I.C.S., with eight years' researches into the formation of poisons in foodstuffs, said no toxicologist could give a definition of the term poison. He had been experimenting on a horse, a cob, for the past five weeks with mutter, and he thought it had improved. He would not recommend peas for horses. Overfeeding with *lathyrus sativus*, he agreed, would produce paralysis.

Mr. Harry Thompson, F.C.S., consulting and analytical chemist, Hull, analyst to a number of farmers' clubs said he received a sample of green peas from Sheardown Tibbits & Co., and found 13½ per cent. of mutter. Unless horses were grossly overfed, he did not think that would do them any harm.

Mr. George Robert Simpson, Driffield, M.R.C.V.S., said on Nov. 16th he visited plaintiff's farm and examined the horses. He found that the quantity of peas given was most excessive.

Mr. Mason, another veterinary surgeon, with experience at home and abroad, in the Army and as a civilian, said the giving of Indian peas containing 15 per cent. of mutter in small quantities would not be injurious, but overfeeding would be injudicious, and they must expect what they had heard. Used it was all right; abused it was all wrong.

Mr. Battle, farmer, Potterhanworth, said in 1911 and 1912 he purchased from the defendants about 120 quarters of Indian peas for about twenty horses and other animals. The horses improved in condition, and he had no bad results.

Mr. Gourley, farmer, Newton-on-Trent, who had also had Indian green peas from defendants to the extent of 25 quarters, said he fed his working horses on it, and had no bad results; quite the contrary. Similar evidence was given by Mr. Riggall, farmer, Hackthorn, and this concluded the case for the defendant.

Mr. Dyer addressed the jury, arguing that there was a warranty, and that the Indian peas were specifically recommended, but that the warranty was broken. He thought everybody agreed now that *lathyrus sativus* was a poison, though the chemist could not put a finger upon it and say specifically what that poison was. Mr. Campbell may have had a bad sample. His horses might be predisposed to the effects of it, but that did not affect the question. Mr. Dyer also dealt with the suggestion of overfeeding, and contended that there had been no overfeeding, and that every lot of the meal had been carefully weighed and given out. In closing, Mr. Dyer claimed to have proved his case thoroughly, and asked for a verdict.

The Jury disagreed.—*Lincolnshire Echo*.

#### DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN.													
Week ended May 24	13		13				6	6	54	84	2	54	1183
Corresponding week in	1912		14				3	4	51	89	1	66	1003
	1911		19				6	7			1	83	756
	1910	42	21	49			5	47			3	38	180
Total for 21 weeks, 1913	275		296				73	219	1442	2956	120	931	13802
Corresponding period in	1912		503				70	149	1928	4296	160	1407	17863
	1911		503		1	18	88	241			297	1016	10797
	1910	662		813			151	407			310	521	4676

† Counties affected, animals attacked: Essex 1, London 5.

Board of Agriculture and Fisheries, May 27, 1913.

								Outbreaks			
IRELAND. Week ended May 24								...	6	3	14
Corresponding Week in	1912	...	...	...	...	...	...	...	...	7	118
	1911	...	...	...	...	...	...	...	5	...	...
	1910	...	...	...	...	...	...	...	6	4	75
Total for 21 weeks, 1913								83	284	65	389
Corresponding period in	1912	...	2	2	...	...	...	37	249	111	1120
	1911	...	5	5	...	...	1	2	38	236	816
	1910	...	4	6	...	...	1	2	33	326	906

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 26, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

### NORFOLK VETERINARY INSPECTORS ASSOCIATION.

The inspectors of the Association were fortunate in obtaining the services of Mr. H. P. Lewis, of Sheffield, to give demonstrations on the detection of tubercle bacillus in milk. These demonstrations were held daily at the Bell Hotel, Norwich, from the 21st to 24th inst., and were well attended, there being present eighteen Norfolk inspectors and two Suffolk men (by invitation), and at the last meeting on the 24th inst. the members expressed their appreciation of the pains and trouble Mr. Lewis had taken.

W. WATERS.

### Organization of Department of Agriculture, South Africa.

Secretary for Agriculture: F. B. Smith. Under-Secretaries for Agriculture: P. J. du Toit and A. Holm. Deputy-Accounting Officer: J. Collie. Chief Clerk: G. N. Williams. Officer in Charge of Inquiry Office, Capetown: G. W. Klerck.

Administrative Office, Pretoria; Telegraph Address, Landbou, Pretoria.

#### VETERINARY DIVISION.

This Division endeavours to prevent the introduction of contagious diseases of live stock into the Union and to eradicate such as are already present, and to protect live stock against enzootic diseases by inoculation and other means. So far as it is able to do so without interfering with its other duties, the Division advises and assists farmers upon diseases of stock generally and endeavours to enlighten them upon veterinary hygiene and the care of live stock. For veterinary purposes the Union is divided into five areas, each in charge of Senior Veterinary Officers, who are responsible for the control of disease within these areas.

Principal Veterinary Officer: C. E. Gray. Assistant Principal Veterinary Officer: J. D. Borthwick.

**Cape Province.**—Senior Veterinary Officer: R. W. Dixon, Government Offices, Parliament Street, Capetown. Government Veterinary Officers: C. S. Elphick, Vryburg; E. Fern, Capetown; A. Matthews, Capetown; G. W. Freer, Uitenhage; R. I. Jones, East London; J. H. L. Lyons, East London; J. Nichol, Kingwilliams-town; W. G. Pakeman, Queenstown; and W. A. Simson, Cradock.

**Transvaal.**—Senior Veterinary Officer: J. M. Christy, Department of Agriculture, Pretoria. Government Veterinary Officers: R. S. Garraway, Pretoria; W. G. Evans, Volksrust; P. Conacher, Johannesburg; J. G. Bush, Krugersdorp; T. H. Dale, Potchefstroom; H. M. Webb, Zeerust; J. M. Tate, Rustenburg; J. Chalmers, Nylstroom; J. I. Edgar, Pietersburg; G. Lee, Lydenburg; G. C. Webster, Barberton; D. B. J. McCall, Ermelo; and G. May, Standerton.

**Natal.**—Senior Veterinary Surgeon: W. M. Power, Colonial Buildings, Pietermaritzburg. Government Veterinary Surgeons: S. H. Ewing, Eshowe; A. F. Harber, Point, Durban; S. I. Johnston, Maritzburg; F. J. Hill, Bulwer; A. Goule, Maritzburg; J. L. Webb, Mooi River; C. Tyler, Ladysmith; and F. Hutchinson, Dundee.

**Orange Free State.**—Senior Veterinary Surgeon: A. Grist, Government Buildings, Bloemfontein. Government Veterinary Surgeons: J. F. Joyce, Ficksburg; J. A. A. Hamilton, Kroonstad; F. M. Skues, Bethlehem; C. H. Wadlow, Smithfield; and C. T. Clemow, Frankfort.

**Transkeian Territories.**—Senior Veterinary Officer: J. Spreull, Umtata. Government Veterinary Surgeons:

A. C. Kirkpatrick, A. M. Howie, T. M. Doyle, W. A. Dykins, A. Goodall, G. T. Henson, and J. A. Worsley

#### DIVISION OF VETERINARY RESEARCH.

The duty of this Division is the investigation of diseases of live stock with a view to discovering methods of eradicating them or of protecting animals against them. It examines and reports upon pathological specimens forwarded by the Veterinary Division and farmers, and prepares vaccines and sera of various kinds, and also mallein, tuberculin, and other diagnostic and preventive agents.

Opportunities are offered to post-graduate students for the carrying out of special investigations and a great deal of educational work is performed by the Division.

The Division is in close touch with and is complementary to the Veterinary Division. Director of Veterinary Research: Dr. A. Theiler. Assistant Director of Veterinary Research: W. Robertson. Superintendent: E. Parkes. Professional Assistants: D. T. Mitchell, W. H. Andrews, D. Kehoe, F. Veglia, W. Jowett, G. N. Hall, G. A. H. Bedford, A. W. Shilton (Pietermaritzburg), and J. Walker (Grahamstown).

### Wind-sucker" and "Crib-biter."

#### JUDGE'S INGENIOUS THEORY.

This action was concluded at the Hull County Court on Thursday, May 22nd, in which Wilhelm Esselborn, a German horse dealer, sued Mr. Thomas Throup, of Cottingham, to recover £21 7s. damages for alleged breach of warranty in respect of the sale of a chestnut mare.

The animal which plaintiff said was warranted to be "good and sound," was now described as a wind-sucker and a crib-biter, and the principal question which His Honour, Judge Lock had to decide was whether a "wind-sucker" and "crib biter" was a sound horse.

Mr. Harry Wray, for the defendant, argued that wind-sucking and crib-biting were nothing more than vices, and in no way affected the question of an animal's soundness.

Mr. A. M. Jackson, for the plaintiff, agreed that the vice of temper would not be a breach of warranty of soundness, but if the vice was something which affected the health of a horse, he argued that it was a breach of warranty of soundness.

His Honour, in giving judgment, said he would have preferred to have had the assistance of an East Riding jury, but in the circumstances he would pay more attention to veterinaries when they proved facts than when they exploited theories. Proceeding, he reviewed the evidence, and said he must hold there was a warranty given with the mare, viz., that the animal was in good and sound condition. The vices of crib-biting and wind-sucking had come more or less under his own personal observation, and he did not think there was really any dispute amongst those who knew horses as to what was the cause of them. One witness said "idleness," but personally he did not think that idleness, happy idleness, was alone responsible. What produced these habits was boredom. It seemed to him that these habits, especially in young horses, arose in exactly the same way that they did in young children. If a boy or a girl in the habit of running about was sent to school for long hours, they would, if they afterwards examined their pens and pencils, find they were nearly all chewed at the ends. That was nothing more or less than crib-biting, the occupation of a bored and irritated nature shut up. That was exactly what a horse did when it started crib-biting. Children could be cured of that, and he believed horses could be cured in exactly the same way as children.

Perfectly analogous to wind-sucking on the part of a horse was the thumb-sucking on the part of a child. It

produced colic and wind, and that was the reason why a good mother or nurse would do everything they could to prevent a child sucking its thumb. A horse sucked its tongue. Having regard to the fact that this mare had been left out in the fields, except in winter, and was now locked up in a stable in the month of July, it was not surprising that at the end of five weeks it had developed these vices of wind-sucking and crib-biting. If everybody had realised that, and that it was quite incipient, it was quite possible that action would never have arisen, at any rate, if they were under the impression that the habits were curable. He had no doubt that when it was re-sold in October it was practically cured. As to whether the warranty covered wind-sucking His Honour said he could not accept the contention that the words "good and sound condition" meant nothing more than thoroughly sound. He thought that "good" meant something more than "sound," and he interpreted its meaning to be "free from vice."

Judgment was, therefore, entered for the plaintiff for the amount claimed with costs.—*The Yorkshire Herald*.

#### Kumis Health Resorts in Ufa.

Ufa is celebrated for its kumis health resorts to which invalids from all parts of Russia flock, so that a few particulars of the means and method of treatment may not be without interest, and may be gathered from the official handbooks in Russian and rendered available for foreigners by means of Esperanto.

Kumis is an ancient drink of Mongol tribes, especially the nomads of the steppes of Asia and South-east Europe, but it has only come into prominence during the nineteenth century. Dr. Grave wrote about it in 1781 calling attention to it as a remedy, but Dr. Postnikov was the first to give it serious attention, and founded a health resort in 1858. Since that time kumis treatment has extended rapidly.

Kumis is prepared from the milk of mares pastured on the steppes, the best being obtained from those feeding on broom, but unfortunately this fodder is rapidly disappearing. A mare gives 5 to 6 bottles of milk a day, which is poured into a wooden receptacle; old (strong) kumis is added, and starts fermentation in the milk, which is kept in a warm place and stirred from time to time. The commencement of fermentation depends on the temperature and occurs after a few hours, then glass bottles are filled and sealed and placed in a refrigerator in order to stop the fermentation. This kumis is called weak, and after warming for a short time, medium, and finally strong. The medium is generally used in treatment, as the strong has a laxative effect and a somewhat disagreeable flavour. Extreme cleanliness is obligatory in the preparation of kumis, for acetic and butyric acid, by-products of fermentation, are readily formed, which spoil it and make it objectionable. Good medium kumis is a dense fluid, frothing well, somewhat sweetish sour in taste, leaving in the glass a thick opaque sediment. It is slightly alcoholic—about 3 per cent., which induces sleep in the patient, who usually drinks 5 to 6 bottles a day. Kumis alone is not an effective remedy, for it does not contain enough nutriment or specific qualities against, say, the bacillus of Koch, but it is an excellent diet auxiliary, inducing appetite, and—what is especially useful—being used in the open air under a clear bright sky, the steppes being an ideal spot for the treatment. So that a kumis course in one's own home is not likely to be of use. Kumis has markedly good effects in the early stages of hæmorrhage but is contraindicated in the later.

The usual routine is breakfast between 6 and 8, tea or coffee, followed by kumis, a walk between 10 and 11. Lunch at 1 with kumis, and again at 3, dinner at 5 to 6, followed by tea and bed at 10.

V.S. N. Foss, Ufa. Trans. F.E.P.

#### The So-called Toxicity of Ascarides.

Eguerrini (*Archiv. di Biolog. Milan*, An. 64, f. iv) criticises some of the evidence adduced in favour of the toxic power of ascarides, and gives the result of certain experiments on the frog's heart when the animal was injected with various extracts of ascarides. The coelomatic fluid of the parasite was first used, then an extract of the cuticular and muscular apparatus, next an extract of the intestines and genital organs, and, finally, an extract of the parasites *en masse*. In every case the result was negative, as far as any changes in the cardiogram could be detected. As the method (Engelman's) used by the author is very delicate, it does not appear that ascarides possess any toxic property. When authors affirm that certain phenomena are symptomatic of worms, or that certain symptoms are likely to occur in people who harbour these parasites, or, again, that certain symptoms have followed the experimental injection of extracts prepared from ascarides, the author replies by a direct negative, and says that if any of these things have occurred it is not a case of cause and effect, but either a coincidence or an error of observation. The particular ascaris experimented with by the author was the *A. megalocephala*.—*Brit. Med. Journal*.

#### Mole-catching Terriers.

Mr. J. C. Bristow-Noble, writing to *Farm and Home*, says: "Two years ago there came under my notice a wire-coated fox-terrier, who, interesting to say, will systematically hunt the mole. The dog in question is practically a self-taught moler, although, as soon as it was noticed that she was acquiring the habit, every encouragement was given her. Before I heard of this terrier, I had never come across a dog who would hunt the mole as it should be hunted, although, of course, I had heard of instances of many dogs occasionally catching a mole, and I knew of several foolish enough to try to dig moles out of their runs. Since then, however, two of the dog's puppies, both females, and both now nearly four years of age, have become valuable molers. One inherited the accomplishment, and had caught fully a hundred moles by the time she was three years of age; the other, who has never been separated from her mother, was taught by her parent. The dogs present a very pretty spectacle when at work where moles are plentiful and busy, tunnelling and feeding.

When one of them winds a mole (and all three being possessed of exceptionally good noses, it has been calculated they are able to catch the scent when undoubtedly the quarry is several inches in the ground), she first stops for a few moments to assure herself of the mole's whereabouts, then she goes slowly forward step by step and inch by inch, lifting each foot with infinite care to the exact spot where the creature is working, and there she waits, sometimes for many minutes, until the hunted is perhaps less than an inch in the ground. Now she throws her weight on her hind legs, and stoops and springs, thrusting her nose into the hill or run, as the case may be, and nine times out of ten the mole is caught and promptly killed. Up to the present it has been found unprofitable to work the dogs together, for they cling together, and all try to catch one and the same mole, with the result that the animal invariably escapes. But efforts, which are slowly bearing fruit, are being made to break them of this annoying habit.



It is in the spring of the year, when the grass is still short and corn in the fields is just beginning to show, that the dogs catch the most moles, and on a day when the air is fairly moist and the breeze strong. On such a day the oldest of the three has caught as many as a dozen moles in the brief space of an hour or so. Care has to be exercised to see that they hunt against the wind.

The dogs are an exceptionally hard strain, and, like most animals that show unusual intelligence, excellently and carefully bred. They are, moreover, good ratters, good at bolting a fox and otter, and have rendered valuable assistance at many a badger dig and hunt. The only fault that can be found with them is that they are on the large size from the sportsman's point of view, but not from the showman's—a fault common to so many terriers. Moling is their favourite occupation, and one of them will spend hours alone in a large meadow diligently hunting."

#### Appointment of Veterinary Inspector.

At the meeting of the Rathdown (No. 1) Rural District Council, May 21, the Clerk (Mr. P. Cunniam) said the meeting had been specially summoned for the purpose of appointing an inspector under the Dairies, Cowsheds, and Milk Shops Order, at a salary of £50, in room of Mr. Mason, v.s., who had resigned.

Mr. Collins said a new order was coming into operation on the 2nd June, and, he presumed, it would be the duty of the officer to do the duties in connection with it. He proposed a resolution in accordance with his statement. Mr. Roe seconded, and the resolution was carried unanimously.

There were three applicants for the post, viz., J. J. Doyle, Blackrock; John J. Kelly, Dublin; and Albert O'Neill, Bray.

Mr. Doyle was called before the meeting and, when the conditions as expressed in Mr. Collins' resolution were made known to him, agreed to abide by them.

Mr. Kelly said in fairness to himself and the public he could not agree to accept them.

Mr. Collins pointed out that the resolution meant that they would not give any increase of salary for any duties under the new Act unless there were reasonable grounds for it.

Mr. Kelly said if they had had an opportunity of reading the Act carefully they would have seen that the public would have to bear a good deal of the expense its working would entail, and it would be unfair to ask any candidate to absolutely bind himself beforehand.

Mr. Collins asked Mr. Kelly would he go forward on the conditions of the resolution?

Mr. Kelly said he could not.

Mr. O'Neill agreed to accept the conditions.

The question arose as to whether they should include Mr. Kelly's application under the circumstances.

Mr. O'Brien said if they would not make the appointment in accordance with the advertisement they should postpone the matter and re-advertise.

Mr. Collins protested. That point should have been raised before his resolution was passed unanimously. They ought to be men—not women.

The Chairman thought they ought to entertain all the applications.

Mr. Collins: We will entertain two. One of them will not comply with the conditions put forward.

Only two applicants were proposed and seconded, viz., Mr. Doyle and Mr. O'Neill.

The voting was as follows:—For Mr. Doyle, 9; for Mr. O'Neill, 6. Mr. Doyle was accordingly appointed.

#### OBITUARY

JAS. BARROWMAN BLACK, M.R.C.V.S., Penicuik, Edin.  
1870. Graduated, Edin: April, 1880.

Mr. Black died on May 24th. Aged 65 years.

#### THE FINANCES OF THE R.C.V.S. AND A SUGGESTION.

Sir,

As was to be expected, the year's balance sheet is as bad as it can possibly be—£465 deficit. Some time ago, an experiment was tried, which I am told, proved to be a ghastly failure as well as a remarkable surprise. It was proposed that all those members of the profession who were in favour of the new Bill should pay the 21/- per annum for registration, without waiting for the Bill to become law. It was remarkable, because it was, and is still supposed that the majority of the profession were in favour of the Bill. If this is the case, why don't these members pay the annual fee and so help the College? Surely it is to their own interest that the R.C.V.S. should be placed on a firm financial footing. Why then should they decline to pay a paltry guinea per year, till they are compelled to do so by law? *O tempora! O mores!*—Yours, etc.,

"VIS UNITA FORTIOR."

[Our recollection is that it was the opponents of the Bill who were given the chance of voluntary contribution which they had so applauded, and that not three of them sent a coin.—ED.]

#### Veterinary Societies—Addresses.

##### BORDER COUNTIES V.M.S.

Pres: Mr. J. W. Hewson, M.R.C.V.S., Wigton

Hon. Sec. (pro tem.): Mr. F. W. Garnett, M.R.C.V.S., Dalegarth, Windermere

Meetings, Second Friday of Feb., June, and October

##### NORTH MIDLAND VETERINARY ASSOCIATION

Pres: Mr. F. L. Somerset, M.R.C.V.S., Chesterfield

Hon. Sec: Mr. J. S. Lloyd, F.R.C.V.S., Sheffield

##### GLASGOW V.M.S.

Pres. Principal McCall.

Hon. Sec. Mr. J. Gibson, 16 Overdale Gdns, Langside, Glas

##### ROYAL VETERINARY COLLEGE M.A.

Pres: Dr. Lander, D.Sc.

Hon. Sec: Mr. S. Gorton, M.R.C.V.S. Assist. Mr. T. J. Davis

##### ASSOCIATION OF VETERINARY OFFICERS OF HEALTH

Pres: Mr. J. G. Reynard, M.R.C.V.S., Perth

Hon. Sec. & Treas. Mr. A. M. Trotter, M.R.C.V.S., Moore Street, Abattoir, Glasgow.

##### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS

Pres: Mr. J. Abson, F.R.C.V.S., Sheffield

Hon. Sec: Mr. Trevor Spencer, M.R.C.V.S., Kettering

##### NATIONAL VETERINARY BENEVOLENT & MUTUAL DEFENCE SOCIETY.

Pres: Mr. W. A. Taylor, F.R.C.V.S., Brick-st, Manchester

Hon. Sec: Mr. G. H. Locke, M.R.C.V.S.

Treas: Mr. J. B. Wolstenholme, F.R.C.V.S., Grosvenor Street, Oxford-st., Manchester

Quay-street, Manchester

##### VICTORIA VETERINARY BENEVOLENT FUND.

Pres. W. Freeman Barrett, Esq. Fountain Ct, Temple, E.C.

Hon. Sec. & Treas: Mr. W. Shipley, F.R.C.V.S., South Town, Great Yarmouth

#### COLONIAL SOCIETIES (continued next page)

##### VETERINARY ASSOCIATION OF NEW SOUTH WALES.

Pres: Mr. S. T. D. Symons, M.R.C.V.S., Chief Insp. of Stock

V. Pres: Major A. P. Gribben, F.V.O., M.R.C.V.S.

Hon. Sec. & Treas: Mr. Max. Henry, M.R.C.V.S., B.V.Sc. (Syd).  
56 Bridge Street, Sydney

**NATIONAL VETERINARY ASSOCIATION**

*Pres.* Mr. William Hunting, F.R.C.V.S.  
*Sec.* Mr. William Hunting, F.R.C.V.S., London, S.W.  
*Treas.* Prof. G. H. Wooldridge, F.R.C.V.S.,  
 Ryl. Vet. Coll., Camden Town N.W.

**Northern Branch:**

*Pres.* W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* A. W. Noël Pillers, (F)  
 74 Smithdown Lane, Liverpool

**LANCASHIRE V.M.A.**

*Pres.* Mr. G. H. Locke, M.R.C.V.S.,  
 Grosvenor-street, Manchester  
*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
 Town Hall, Manchester

*Hon. Treas.* Mr. E. H. Stent, M.R.C.V.S., Preston-st, Hulme  
*Meetings*, 1st Thursday in April, June, Sept., & Dec.

**LIVERPOOL UNIVERSITY V.M.S.**

*Pres.* Mr. J. T. Share-Jones, F.R.C.V.S., University, L'pool.  
*Hon. Sec.* A. Richardson, M.R.C.V.S., 111 Arundel Av., L'pool.  
*Pathological Sec.* Mr. D. C. Matheson, F.R.C.V.S.  
*Meetings*, May, July, October, January.

**MIDLAND COUNTIES V.M.A.**

*Pres.* Mr. J. Martin, M.R.C.V.S., Wellington, Salop  
*Hon. Sec.* Mr. H. J. Dawes, F.R.C.V.S.,  
 Camden House, High-st., West Bromwich  
*Meetings*, Second Tuesday, Wednesday, Thursday, and  
 Friday alternately in Feb., May, Aug. and Nov.

**NORTH OF ENGLAND V.M.A.**

*Pres.* :  
*Hon. Sec.* T. T. Jack, M.R.C.V.S., 3 Elmwood Ter, Sunderland  
*Meetings*, Third Friday, Feb., May, Aug. and Nov.

**NORTH WALES V.M.A.**

*Pres.* Mr. F. Booth, M.R.C.V.S., Colwyn, Denbighshire  
*Hon. Sec.* Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings*, First Tuesday, March and September

**SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.**

*Pres.* Mr. W. Awde, F.R.C.V.S., Stockton-on-Tees.  
*Hon. Sec. & Treas.* Mr. J. H. Taylor, F.R.C.V.S.,  
 Grange Road, Darlington  
*Meetings*, First Friday, Mar., June, Sept. and Dec.

**YORKSHIRE VET. ASSOCIATION**

*Pres.* Mr. J. Abson, F.R.C.V.S., Norfolk Street, Sheffield  
*Hon. Sec.* Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds  
*Hon. Treas.* Mr. A. McCarmick, M.R.C.V.S.,  
 Kirkstall-road, Leeds

**Southern Branch:**

*Pres.* Sir Stewart Stockman, 4 Whitehall Place, S.W.  
*Sec.* T. C. Toope, 34 High Street, Dover

**CENTRAL V.S.**

*Pres.* Mr. J. W. McIntosh, M.R.C.V.S., 14 Templar-street,  
 Myatt's Park, S.E.  
*Hon. Sec.* Mr. H. A. MacCormack, M.R.C.V.S.,  
 122 St. George's Avenue, Tufnell Park, N.  
*Meetings*, First Thursday in each month, except August  
 and September, 10 Red Lion Square, Holborn, at 7 p.m.

**EASTERN COUNTIES V.M.A.**

*Pres.* Mr. F. B. O. Taylor, M.R.C.V.S., Westcn Longueville,  
*Hon. Sec. & Treas.* Mr. Sidney Smith, Junr., M.R.C.V.S.,  
 37 High Street, Lowestoft  
*Meetings*, Second Tuesday, Feb., July and Sept.

**LINCOLNSHIRE V.M.S.**

*Pres.* Mr. C. W. Townsend, F.R.C.V.S.,  
 Long Stanton, Cambridge  
*Hon. Sec. & Treas.* Mr. Tom Hicks, M.R.C.V.S.,  
 Boston Road, Sleaford  
*Meetings*, Second Thursday Feb., June, and October

**ROYAL COUNTIES V.M.A.**

*Pres.* Mr. David Wyllie, M.R.C.V.S., Tudor House, Staines  
*Hon. Sec. & Treas.* Mr. G. P. Male, M.R.C.V.S., Reading  
*Meetings*, Last Friday, Jan., April, July and Nov.

**SOUTHERN COUNTIES V.S.**

*Pres.* Mr. G. H. Livesey, M.R.C.V.S., Hove, Sussex  
*Hon. Sec.* Mr. J. Alex. Todd, M.R.C.V.S., Worthing  
*Hon. Treas.* Mr. E. W. Baker, M.R.C.V.S., Wimborne  
*Meetings*, Last Thursday, Mar., June and Sept.

**SOUTH EASTERN V.A.**

*Pres.* Mr. James Crowhurst, F.R.C.V.S., Canterbury  
*Hon. Sec. & Treas.* Mr. Theo. C. Toope, M.R.C.V.S.,  
 34 High Street, Dover  
*Meeting*, Second Wednesday in May; Maidstone

**WESTERN COUNTIES V.M.A.**

*Pres.* Mr. C. E. Perry, F.R.C.V.S., Staple Hill, Bristol.  
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*Meetings*, Third Thursday, March, July and November

**Irish Branch:**

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**CENTRAL V.A. OF IRELAND.**

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**CONNAUGHT V.M.A.**

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**Scottish Branch:**

*Pres.* Dr. O. Charnock Bradley, } Ryl. (Dick) V et.  
*Hon. Sec.* Prof. A. Gofton, } Coll: Edinburgh

**NORTH OF SCOTLAND V.M.S.**

*Pres.* Mr. W. Marsden, M.R.C.V.S., Badff  
*Hon. Sec. & Treas.* Mr. G. Howie, M.R.C.V.S., Alford, Aberdeen  
*Meetings*, Last Saturday in January and August

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**SCOTTISH METROPOLITAN V.M.S.**

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*Hon. Sec.* Mr. Jas. Henderson, M.R.C.V.S.,  
 Public Health Dept., City Chambers, Edinburg

**WEST OF SCOTLAND V.M.A.**

*Pres.* Prof. John R. McCall, M.R.C.V.S., Vety. Coll. Glasgow  
*Hon. Sec.* Mr. J. F. Macintyre, M.R.C.V.S.,  
 19 Bank Street, Hillhead, Glasgow  
*Hon. Treas.* Mr. Geo. W. Weir, M.R.C.V.S.,  
 88 Crookston Street, Glasgow  
*Meetings*, Second Wednesday, May, Oct. and January.

**COLONIAL SOCIETIES: (see preceding page)****BRITISH COLUMBIA V.M.A.**

*Pres.* Dr. Gibbons, M.R.C.V.S., Vancouver,  
*Hon. Pres.* Dr. Hamilton, M.R.C.V.S., Victoria.  
*Sec., Treas., Registrar.* Dr. T. Jagger, V.S., Vancouver.

**CAPE OF GOOD HOPE V.M.S.**

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 Pietermaritzburg  
*Hon. Sec. & Treas.* Mr. J. B. Collyer,  
 Vety. Inspector Natal Police, Pietermaritzburg

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*Pres.* Mr. J. H. Tennent, v.s., London, Ontario  
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*Pres.* Mr. C. E. Gray, P.V.S., Box 184, Pretoria.  
*Hon. Sec.* Mr. P. Conacher, v.s., Box 877, Johannesburg

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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## THE ANNUAL GENERAL MEETING AND DINNER.

The Annual General Meeting is reported in another column. It scarcely requires comment here. The Council election furnished no surprises, for everyone had expected to see the eight retiring members re-elected; and no great interest centred round the disposal of the ninth seat. The lack of discussion was perhaps a natural result of the small attendance. Apart from Councilmen—and even they were not numerous—less than ten members were present, including one or two who arrived late to find the brief proceedings over, and therefore did not sign the attendance book. If the attendance at the Annual General Meeting is to be taken as a criterion of the interest of the profession in its own progress, this year's gathering must be recorded as one of the most discouraging in our history.

The dinner in the evening made some amends for the failure of the general meeting. It is true that the attendance was not so good as had been hoped—it amounted to about fifty, including some ten ladies. In every other respect the dinner was an unqualified success. There was a musical programme which, to judge from the number of encores given, was very much to the taste of the audience, and a short toast list. The chief toast of the evening, of course, was "The R.C.V.S.," felicitously proposed by Sir John M'Fadyean, who claimed—quite justly, we believe—to have "discovered" Prof. Mettam as a student, and to have been the means of first introducing him to veterinary tutorial work. The President, in his reply, dealt with a variety of professional matters—among them the work of the Parliamentary Committee, and the pending Bill—and interspersed some pleasant personal references to his old teacher. Hardly less important, under the circumstances, was the toast of "Agriculture," which was proposed by Mr. Garnett, and responded to by the Right Hon. T. W. Russell, Vice-President of the Department of Agriculture and Technical Instruction for Ireland. This reply showed clearly that our profession has at least one man in Government circles who appreciates our work. Mr. Russell dwelt at some length upon last year's visitation of foot-and-mouth disease, emphasising the success with which it had been

handled by our members in Ireland, and contrasting the results with the enormous losses sustained in 1884. "In that four months," said the speaker, alluding to the period during which disease existed in Ireland, "I learned the value of the veterinary profession." Incidentally Mr. Russell let fall the information that the new arrangements in connection with the Irish Veterinary College, which will virtually transform it into a State School, are now complete; and only require the Royal Assent a few days hence to become effective. He referred also to the good work done by veterinary dispensaries in the poorer parts of Ireland, and spoke sympathetically of the need for agricultural education and veterinary research. Altogether it was the speech of an admirer of the profession; and the position of the speaker rendered it a notable utterance.

The toast of "Medicine" was proposed by Prof. Wooldridge, and acknowledged by Dr. Louis Parkes, who is now a well-known and always welcome guest at veterinary dinners. That of "The Guests" was proposed by Prof. Macqueen, and responded to by Mr. Rae, and this brought the proceedings to a close. The dinner was a very enjoyable one—but that so few should have attended the dinner, and hardly anyone the annual general meeting, is a discredit to the profession. It was a poor compliment to an able and distinguished President; it was a poor acknowledgement of the efforts of a hardworking Council.

## A TRANSCRIPT FROM A CASE BOOK.

*Breed.*—Valuable Purebred Shire Foal, 24 hours old.

*Disease.*—Scrotal Hernia.

*History.*—The foal had some difficulty in passing faeces and was noticed straining and pressing a good deal for 5 or 6 hours before seen by me.

*Symptoms.*—Swelling about the size of a coconut in the off groin. Foal lying and rising, and stretching so that the belly almost touched the ground. Had stopped sucking and was very weak, bowels locked.

*Prognosis.*—Unfavourable.

*Treatment.*—The little animal was held on its back by 3 men—the part was washed with Chinosol and water and well dried—the bowel was gently and firmly reduced, the testicle manipulated and secured, the skin was then cut through very cautiously so as not to injure the tunic. The latter was dissected right back to the external inguinal ring and a strong silk ligature applied as far up as possible. The testicle was removed about 1½ inches from the ligature, a few sutures in the skin com-

pleted the operation. Great care was taken to have everything aseptic. The foal got up after the operation, had a suck and a motion, and never again looked back. Three days later the external sutures were removed. The only treatment used after the operation was 2 oz. of castor oil and the application of boracic lotion twice daily.

*Remarks.*—My reason for recording this case is because it was the first time I had operated on so young a foal, and further, that many such foals in my opinion have been allowed to die from the same cause; in this case neither the owner or attendant had noticed the swelling in the scrotum before my visit. It may therefore be surmised that Scrotal Hernia in foals has occasionally been overlooked and the little patients allowed to die from what is popularly known as inflammation. I watched the patient one hour before I would consent to operate. The owner insisted that I should do something, because, as he said, it would only be death anyway. I need hardly say that I would not hesitate again under similar circumstances.

JAMES GREGG.

Glen Road, Belfast.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### RUPTURE OF THE LIVER IN THE HORSE.

Speiser reports the case of a gelding, about fifteen years old, which had been in the possession of a firm of carriers for about nine years. During that time he had only been under treatment once, and then on account of picking up a nail.

In June, 1912, he developed a well-marked attack of influenza, showing violent catarrhal conjunctivitis, with oedema of the eyelids, oedemas of the subcutaneous tissues and of the limbs, and impaired movement. Fever only lasted for four days, the daily temperatures being successively 104.9° F., 105° F., 105.8° F., 102.5° F., and afterwards under 100.6° F. Other symptoms were an increase in the pulse-rate up to 70 per minute, and loss of appetite. Further complications did not appear at that time, but convalescence was protracted, while the horse (as were also others affected in the same stable) was remarkably weak for a long time afterwards, and on that account was only able to perform half his usual work.

Nearly 5½ months later, the horse suddenly developed jaundice. All the visible mucous membranes, especially the conjunctivæ, were lemon-coloured. The appetite was totally in abeyance, and the horse was very weak. The pulse was weak, and ran up to 90 per minute; and the fæces were dry, foul-smelling, and passed in small balls. This condition persisted with varying intensity for three weeks, after which the horse slowly returned to the normal. He was discharged from treatment after about a month of veterinary care. Without giving a detailed account of the treatment he adopted, the author remarks that repeated doses of caffeine were found necessary, that several times calomel in

doses of 2 grammes (= about 3 ss.) and salicylate of sodium were prescribed, and that all measures to restore the appetite, including the administration of stomachics, were unavailing while the symptoms of jaundice lasted. However, the horse to all appearance completely recovered. The emaciation disappeared, and the animal resumed work and continued to perform it till one day about 2½ months after his discharge from treatment.

On that day the horse, while at work, was suddenly taken ill. He threatened to fall, and could only be got back into the stable with difficulty. Azoturia was suspected by the owners, and the horse was immediately put into slings. He died an hour and a half later, before Speiser's examination was completed.

Post-mortem, when the abdominal cavity was opened, it was found to contain a considerable quantity of uncoagulated blood. The viscera were pale and devoid of blood, like those of a "bled-out" animal. The main lobe of the liver was almost double its usual size, its surfaces were uneven, and its consistence was harder than normal. Over a great extent of this lobe, Glisson's capsule was raised from the hepatic parenchyma by massive blood-clots, and the substance of the liver was penetrated by a deep vertical jagged rent. Blood-coagula were extended far into the hepatic tissue. In the portion not affected by hæmorrhage, the liver showed the condition of a "nutmeg" liver, showing at the same time submiliary hæmorrhages in the shape of blackish-violet hæmorrhagic spots. The other organs of the abdomen and thorax showed no noteworthy alteration. Death had occurred from hæmorrhage from the liver into the abdominal cavity.

Rupture of the liver after acute or chronic hepatitis is not rare. Speiser, however, regards this case as worthy of record, because he believes he can trace a connection between the initial attack of influenza, the subsequent jaundice, and the final rupture of the liver. He considers that influenza toxins were produced, which severely damaged the liver tissue and finally caused a hepatitis associated with hepatogenous jaundice. Although the horse had apparently recovered, a complete *restitutio ad integrum* had not taken place. A lesion of the walls of the blood-vessels in the hepatic tissue had remained, and from some not clearly ascertainable cause—perhaps from increased blood-pressure through exertion—had resulted at first in very small venous hæmorrhages, and these, increasing, had led to the rupture of the liver.—(*Münchener Tier. Woch.*)

##### INVERSION AND PROLAPSUS OF THE UTERUS IN SWINE.

Pante, in an inaugural dissertation at Hanover, describes the method he has followed and the results he has attained in amputating the uterus for this condition. He has amputated the prolapsed uterus of the sow 18 times: 11 cases have resulted in recovery, and 7 in death, the recoveries thus averaging 60 per cent.

Pante operates *without* narcosis, and describes his procedure as follows:

The sow is bound and held down by two strong men. The uterus, the labia, the surroundings of the anus, and the root of the tail are thoroughly cleansed and disinfected. One of the men continuously holds the tail to one side. Pante then places a clean white cloth under the uterus, and also places a bucket of clean fresh disinfectant solution in readiness. An assistant, after thorough cleansing of his hands, then holds the uterus, together with its horns, elevated for a period of five minutes. This is done for two reasons. The first is to cause the gliding back of any portion of intestine or peritoneum which may have become displaced; and Pante always satisfies himself on this point by incising the wall of the uterus, and introducing his hand. The second is, by the elevation of the uterus, to facilitate the backward flow of the blood which has collected in the uterine walls.

After a further disinfection, the uterus is ligatured; and for this purpose Pante uses two strong and *stiff* ligatures soaked in Stockholm tar. The first is applied at the beginning of the neck of the uterus, about 1 1-5th to 2 inches in front of the opening of the urethra. It is tied by a surgical knot one thread being wound twice round the other. Care must be taken that the urethra is not included in the ligature. Then Pante winds each end of the ligature round a piece of wood, and draws the knot at first moderately tight. At this point the animal must be firmly held, as she often struggles violently. After about two or three minutes, Pante draws the knot tighter, the fluid present in the tissues at the position of the ligatures having meanwhile had time to flow away. After two or three minutes more, Pante again draws upon the knot very tightly; after which, without being allowed to slacken, the knot is carefully tied. The second ligature is applied in the same manner as the first, about 1 1-5th inch peripherally to it. The uterus is then excised about 1 1-5th to 1 3-5th inches from the second ligature; and the stump sinks back in the vagina.

Some operators advise postponing removal of the uterus for a day, with the idea of preventing a slipping off of the ligatures. Pante does not support this practice. If the ligatures are applied as he directs, there is no danger that they will slip off after immediate removal of the uterus. On the other hand, if the uterus is allowed to remain, there is a possibility that its weight may cause lacerations as the animal moves about.

As after treatment, Pante merely orders syringing out of the vagina with a *weak* disinfectant solution. Only in exceptional cases, when the sow is straining violently, he applies a retentive suture to the vagina. The ligatures and the stump of the uterus come away naturally in about one or two weeks. —(*Münchener Tier. Woch.*)

#### BLACK QUARTER OF THE HEART MUSCLE.

Kiesel, of Schwäb, records the following rare post-mortem observations, made by him upon a cow which had died of black-quarter,

The subcutaneous tissues and the muscles of both shoulders showed lesions; but these were so slight that they might easily have been overlooked. This, together with the fact that the disease had run a rapid course, led Kiesel to suspect that some of the vital organs had been invaded by the bacilli. An examination of the viscera was then made, and resulted as follows.

The heart was considerably enlarged, and felt "puffy." At the moment when the cardiac chambers were opened, the heart distinctly collapsed. It was evident, therefore, that gases had been present in the chambers; and the general condition excluded the idea that these might have been gases of putrefaction. The cardiac muscle was brown-grey in colour, was loose, cracked when palpated, like skeletal muscle affected with black-quarter, and gave forth a penetrating black-quarter odour. In the exceedingly scanty muscle juice—the skeletal muscles which showed lesions were also unusually dry—innumerable black-quarter bacilli were found in pure culture. The blood yielded no black quarter bacilli; and this, apart from other considerations, proved that the invasion of the heart by the bacilli was not merely a post-mortem occurrence. The case was therefore one of "black-quarter of the heart"—a condition which has not yet, to Kiesel's knowledge, been described.

The spleen, contrary to the rule in black-quarter, was swollen. Its edges were round, and its capsule tense. Under the capsule were hæmorrhages which varied greatly in dimensions, ranging from the smallest streak to over an inch in diameter. The spleen pulp was softened, but not fluid. It contained bacteria, but only in the form of short stout rods united in pairs.

Some circumscribed lesions existed in the small intestine. These could be recognised from outside by dark red colouration, hæmorrhages, thick deposits of fibrin, and palpable thickening of the intestinal wall. Internally, the mucous membrane showed small places (from 5-8ths to 1 inch in diameter) which had become eroded or ulcerous. In other places, the mucous membrane showed button-shaped thickenings attaining from three-fold to five-fold of the normal thickness of the membrane. These thickenings showed a necrotic centre, and were very similar to the "carbuncles of the mucous membrane," which may be present in anthrax. Anthrax, however, could be excluded from the case. All the remainder of the intestine was free from lesions of the nature described above. Kiesel leaves the question of a connection of these intestinal lesions with black-quarter open.—(*Berliner Tier. Woch.*)

#### CEREBRAL CONVULSIONS IN A HORSE.

Grosche records (*Zeitschr. f. Veterinärk.*) the case of a working horse which, on November 1, 1911, received a kick in the temporal region from another horse. In the course of the treatment of the injury some splinters of bone came away from the wound. From the day of the injury onwards the appetite of

the horse was poor, and the general condition gradually deteriorated.

On May 13, 1912, the horse suddenly began to stagger, and threatened to fall. Besides this, sweat broke out over the whole body. The head was held sunken, and consciousness was impaired. The respiration was superficial, and counted 24 to the minute; and the rectal temperature was 101.5° F. The pulse was strong, equal, and regular, and counted only 16 to the minute. The horse drank greedily, but refused food. Reaction to pin-pricks was shown in all parts of the body, but only in a small degree.

An hour later the horse fell, and afterwards showed convulsive movements of the muscles of the head and chest. The muscles were hard and tense; and the pupils of the eyes were dilated. The background of the right eye appeared red, and that of the left blue-green. The respirations remained 24 to the minute. The muscular convulsions lasted half-an-hour.

The horse then rose again without help, and the movements seemed more free. The animal seemed, however, to have become blind, as he struck against all surrounding objects.

An hour later a fresh attack of convulsions set in, and lasted about ten minutes. Three hours later, there was a third and last attack. After this the horse remained quietly standing or lying down. The appetite was suppressed.

The next day the horse was standing quietly in the box. He was difficult to move forwards and sideways, and the movements of the limbs were executed gropingly. The pulse was 28 per minute, the respirations 16, and the rectal temperature 102.4° F. The conjunctivæ of both eyes were blood-red, and the pupils were widely dilated. The background of the right eye was blood-red, especially in the region of the tapetum. The left eye only showed dilation of the pupil.

The day after, the horse showed symptoms of colic, and died the same day.

Post-mortem examination revealed purulent inflammation of the peritoneal covering of the small intestine and colon. About half a yard behind the end of the duodenum was a tumour twice the size of the fist, firm in consistence and smooth upon its surface, and lying between the two leaves of the mesentery, which were forced apart by its presence. A canal led from its surface into a cavity in its centre the size of a hen's egg, containing a small quantity of pus. An adhesion existed between this tumour (or rather abscess) and the base of the cæcum. About eight inches of the length of the small intestine in the vicinity of the abscess was coloured grey-white and covered with a fibrinous coagula. The intestinal wall here had the consistence of leather, and was devoid of blood. For about two inches before and behind this portion of intestine, the intestinal wall was dark red in colour, and rose up like a pad above the level of the grey-white division of the gut. The mucous membrane of the small intestine was swollen, dull, and grey-white.

When the vertebral canal was cut through behind the second cervical vertebra, three tablespoonfuls of

an opaque yellow-red fluid escaped. At the seat of the old wound in the temporal region, in the spongy portion of the bone, was an abscess the size of a small walnut. The brain showed small hæmorrhages in the optic thalami and the corpora quadrigemina, and other inflammatory lesions in the white substance of both cerebral hemispheres and on the basilar surface of the brain. The cerebellum and the spinal cord showed no lesions.

Grosche's view of the pathogeny of the case is that metastasis had taken place from the abscess which had formed in the depths of the injured and superficially healed bone. This metastasis had given rise to the abscess of a lymphatic gland in the mesentery, which by its pressure had caused the previously described necrosis of eight inches of intestine, and to the various cerebral lesions. Grosche thinks that probably the falling of the horse when in convulsions caused the mesenteric abscess to burst, thus giving rise to colic and peritonitis.—(*Münchener Tier. Woch.*)

W. R. C.

#### THE VETERINARY SURGEON AND HIS RELATION TO THE REFRIGERATED MEAT SUPPLY.

By ALEX. CRABB, M.R.C.V.S.  
(Concluded from p. 763.)

#### SOME ABNORMAL CONDITIONS FOUND IN REFRIGERATED MEAT.

I would now deal with a few of the conditions which may arise, mostly as a result of accident or improper handling of refrigerated meat, and which bring it under the notice of veterinary and other inspectors on its arrival in this country.

##### PUTREFACTION.

At one time it was no uncommon occurrence for a portion of a frozen cargo to arrive in a putrid condition; this was invariably due to breakdown of some portion of the refrigerating plant, but such a thing is very rare on account of the improvements in machinery. It was more common during the early experiments in carrying "chilled" beef (*e.g.*, at a temperature of about 29° F.) Needless to remark, such meat is unfit for food and should be destroyed.

A somewhat similar condition is found in frozen meat when air has been allowed to enter the hold of the vessel; this causes a condensation of moisture on the carcasses nearest the leakage, and they become more or less embedded in ice, with the result that decomposition is liable to ensue.

Meat inspectors require to exercise care in deciding on the suitability of such meat for food; at the time of discharge from the vessel it may seem sound, but it should always be borne in mind that early putrefaction will most likely set in after complete thawing, and actions should be based accordingly and arrangements made for further inspection prior to actual marketing.

##### BONE TAIN.

This is a decomposition found in beef, very rarely in mutton, commencing and usually localised in the region of the hip joint; it is also very occasionally found affecting the fore quarter in the region of the shoulder joint; at one time of frequent occurrence in frozen beef, and very common in chilled beef; in some cases,



up to 25 per cent. of some consignments would be found affected. Again, through better handling, this trouble has become much reduced, although still of sufficiently frequent occurrence to keep inspectors on the *qui vive*, and to warrant examinations periodically to prove its absence or otherwise. Externally, the affected beef appears quite normal and no odour can be detected. To examine, a hole is bored from the internal aspect of the leg into the hip joint, the removed "bore" is thawed, when if "bone taint" be present there will be an abnormal odour, varying from a sharp smell of acid fermentation to one of putridity. In some cases, the decomposition has spread so far as to necessitate condemnation of the whole hind quarter, but in others partial condemnation is sufficient, as the hard frozen condition of the meat would appear to have prevented spread of the affection.

The cause of "bone taint" has not yet been definitely settled, numerous theories having been advanced; the most popular one is that it is due to "the animal heat having been frozen in" on account of too rapid freezing, this presupposing that the warmer deep-lying tissues are surrounded by a layer of hard, frozen meat when too low a temperature is quickly applied. I think, however, that a more logical explanation would be that it is due to too *slow* freezing and to the onset of decomposition before a low temperature was reached; one can hardly accept the theory that the deep lying portions of a carcass would retain their heat while the superficial portions became frozen, but would argue that there must necessarily be a gradual interchange between internal heat and external cold until a mean temperature was attained. Moreover, the former theory would not account for the appearance of bone taint in "chilled" beef, where the meat is never frozen, and I have also noted that the complaint is more frequent in beef from freezing works where the killing most nearly approaches the freezing capacity, and rarer in those where there is a large reserve of refrigerating power; in addition, advice given and followed to reduce the temperature of the beef as soon as possible after slaughter, has been the means of eliminating the trouble.

It is also stated that the condition of the animal at the time of slaughter may be a factor in the production of "bone taint," and that it will occur if the animal is insufficiently rested; experiments, however, do not always bear this out, as animals purposely killed immediately after a long road journey have proved all right, while others properly rested and dieted have produced "bone taint." Another circumstance worth mentioning is that, in the same animal, one quarter may be affected and the other free.

#### MOULDS.

At one time, "chilled" meat on arrival in this country was frequently found to be mouldy, and as in a great many instances this was associated with putrefaction, condemnation resulted.

Since the disinfection of the holds and meat with Formaldehyde has become more general, this trouble has practically ceased. In frozen meat, mould is sometimes seen and may then be ascribed to various causes; the most frequent is the loading of carcasses into the ship in the country of origin during damp weather; moisture soaks through the cover on to the meat and moulds often result. It may also be due to defective insulation, breakdown of machinery and an alternating temperature, as for instance in a cold store without air locks where the outer air is frequently allowed to enter. The moisture in the heated air condenses when it comes in contact with the cold meat and may carry with it various impurities.

Various moulds are found on meat, *Penicillium*, *Mucor*, *Saccharomyces*. Klein investigated one case of so-called "Black spot" and gave the name of "*Oidium*

*carnis*" to the causal fungus found, but similar moulds are said by Massie, of the Jodrell Laboratory and Dr. Rideal, to be due to "*Cladosporium herbarum*."

Inspectors have frequently to adjudicate upon mouldy meat, and there is a great lack of uniformity in their procedure, a lack of knowledge on the part of improperly qualified inspectors, often leading to condemnation of food by no means unfit for consumption. The various authorities agree that as "mould" is almost invariably superficial it has no effect on the meat below the surface, and that when it exists alone, *e.g.*, without decomposition or other change, the meat may be passed after removal of the mouldy portion. Sometimes, of course, total condemnation is imperative, as for instance when the mould is so extensive as to cover the whole of a carcass and removal would render the remainder unmarketable.

#### BRINE STAIN.

In those ships in which the necessary temperature is obtained by means of the "Brine circulation" mentioned in an earlier part of this paper, damaged meat is sometimes found as a result of faulty joints or leakages in the brine pipes, and here again the meat inspector has to decide what is fit for food and what must be condemned.

The escaping brine, a solution of Chloride of calcium, is intensely salt and bitter and renders the meat so unpalatable as to be unfit for food; therefore, when its presence on meat is demonstrated, such meat should be condemned. Difficulty sometimes exists, as the stain made by the brine on the meat is frequently very faint—unless, of course, the brine has previously become contaminated on its journey from the pipes to the meat.

Trotter, veterinary surgeon of Glasgow, records a case where a considerable portion of a shipment was so spoiled, and gave the following particulars: The brine had penetrated from the cut surface of the meat to the extent of half-an-inch, but from the uncut surfaces only an eighth of an inch. Analysis of the parts showed 18 per cent. Calcium chloride present, which remained to a great extent after cooking.

#### RANCIDITY.

Occasionally, inspectors find that the superficial fat such as the scrotal, has undergone some change and has become rancid and this may be looked upon as a result of faulty refrigeration, as given good conditions, the fat should remain normal.

It is usually considered that rancidity arises when the atmosphere of the refrigerating room contains too much moisture and where the meat is not kept sufficiently dark, the result would be an oxidation and a setting free of various fatty acids. Rancidity, when found in refrigerated meat, is usually local and necessitates only the condemnation of the portions affected.

There are several other minor abnormal conditions in frozen meat which bring it under the notice of the Inspectors on the various markets here, and these may be looked upon as the result of faulty handling, imperfect storage, etc., but, in proportion to the amount of meat examined, they are not of frequent occurrence, and do not merit more than a passing reference. For example, when the "direct expansion" system of freezing is used, it has been found that with very low temperatures the meat close to the pipes containing the Ammonia is liable to become bleached and somewhat dessicated owing to the rapid absorption of moisture, and the same condition is noted in the case of carcasses if in the direct line of cold air from the trunk of a "battery system." Again, when through mismanagement, meat has become partially thawed and refrozen, perhaps more than once, certain changes seem to take place, Hæmoglobin is set free, the whole of the tissues are stained and the meat unmarketable, in both the above cases condemnation is warranted.

## INSPECTION OF FROZEN MEAT IN THE COUNTRIES OF ORIGIN.

Of the refrigerated meat imported into this country 64 per cent. comes from South America, 18.17 per cent. from New Zealand and 14 per cent. from Australia, leaving less than 4 per cent. from other countries.

As the Argentine Republic, Australia, and New Zealand have each a comprehensive system of inspection of meat effectively carried out, it can be seen that another proof is forthcoming as to the purity of refrigerated meat, each of the above Governments guaranteeing that all meat exported has been examined and found free from disease and fit for human consumption—more than can be said regarding a considerable proportion of the meat killed in this country.

Without entering into too great detail, a few remarks as to the systems of inspection in the above countries might not be amiss.

In the Argentine Republic, in the eight export Abattoirs there are employed 38 Veterinary Surgeons and 106 Assistants to these, such numbers of inspectors being necessary on account of the large number of cattle slaughtered. All cattle are examined on arrival, and those coming from public markets must be accompanied by certificate of health from the local Veterinary Surgeon.

The Veterinary Inspectors are under the control of the Minister of Agriculture and quite independent of the owners of the abattoirs, thus ensuring independence of action; they have power to forbid the slaughter of any animal if they consider its condition such as would render its flesh unfit for food, and also have supervision of all waiting cattle, noting that they are suitably supplied with food, water, etc.

Upon slaughter, a careful examination is made of both carcasses and internal organs and, according to the regulations in force, a somewhat high standard is aimed at. In the case of Tuberculosis, total seizure is authorised:—

- (1) When there are any large tuberculous lesions in the Thoracic and Abdominal cavities.
- (2) When there are embolic collections in the organs of both serous cavities.
- (3) When any tuberculous lesion of whatever kind is accompanied by extreme emaciation.
- (4) When there are any lesions in the muscle or in the bones.
- (5) When Miliary tuberculosis is present.

There are also regulations in force dealing with such diseased conditions as Anthrax, Foot-and-mouth Disease, Actinomycosis, Pseudo-tuberculosis, Emaciation, Trichinosis, etc., but as the judgement on these is ordered on well-recognised lines I do not purpose detailing them.

In Australia, until recently, meat inspection was not on quite a satisfactory basis, there being too much local control; early in 1911, however, the Federal Commonwealth Government instituted a system of inspection under central control, again giving the Veterinary Surgeons independence of action.

Ten Veterinary Surgeons with special qualifications as meat inspectors have been appointed, together with the requisite number of trained lay inspectors, and the instructions laid down for their guidance ensure the passing for food only meat that is fit. All animals have to be examined prior to slaughter, apparently diseased animals being slaughtered separately. The following extracts from "Instructions to Inspector" give an indication of the steps taken to ensure a healthy food export.

Condemnation of the whole carcass is necessary in the presence of any of the following conditions:—

- (a) Any general disease, such as Anthrax, Blackleg, Pyæmia, Septicæmia or Tetanus.

- (b) Definite emaciation.
  - (c) Anæmia, if pronounced (flesh pale, soft, watery).
  - (d) Signs of marked fever of flesh.
  - (e) Cloudy swelling or fatty degeneration (unless definitely localised).
  - (f) Redwater—if the flesh is in any way abnormal.
  - (g) Jaundice.
  - (h) Uræmia.
  - (i) Cystic parasites (*Cysticercus Cellulose* or *Trichina Spiralis*).
  - (j) Immaturity.
  - (k) Very advanced pregnancy or parturition (within 10 days).
  - (l) Inflammation of the lungs, Pleura, Peritoneum, Intestines, Uterus, Pericardium or Endocardium.
  - (m) Swine Fever or Hog Cholera.
  - (n) Malignant Catarrh.
  - (o) Multiple abscess (in sheep).
- In Tuberculosis, total condemnation is authorised in the following:—

- (a) Tuberculosis in any degree in the pig.
- (b) Any emaciated carcass showing Tuberculosis in any degree.
- (c) Any tuberculous animal found before slaughter to be suffering from fever, or evidently ailing.
- (d) If the disease is generalised.
- (e) If the lesions, wherever situated, are extensive and caseous or purulent, or surrounded by active hyperæmia.
- (f) If Miliary tuberculosis is present in both lungs, or if the disease in the lungs is accompanied by adhesions between lung and pleura, or if the pleura or peritoneum is affected.
- (g) If Miliary tuberculosis is present in the liver, along with a tubercular lesion in some other part of the carcass.
- (h) If tuberculosis is present in two or more places (organs, glands, membranes or tissues) not directly connected by lymph vessels.

There are also regulations governing the disposition of carcasses affected with other diseases such as Actinomycosis, *Onchocerca*, etc.

In New Zealand, a very complete system of meat inspection has been in force since 1900, in that year a Slaughtering and Inspection Act was passed, which, *inter alia*, enforced that all meat exported must have been examined at the time of slaughter. There are in that country 27 Veterinary Surgeons, and of these about 20 are engaged with the inspection of meat to be exported, being assisted in their duties by 23 trained lay meat inspectors. These officers are under sole control of the Chief Veterinary Surgeon for the Dominion, and not in any way responsible to the owners of the freezing works, thus again ensuring absolute independence of action.

In that country, a high standard of inspection is maintained and this is rendered possible by the comparative healthiness of the live stock, by the fact that most of the export consists of mutton or lamb, in which, of course, less disease is found than in cattle and pigs, and further by the fact that attached to almost each freezing works is a preserving plant, so that in any case of doubt the Inspector can order the carcasses to be cut up for his examination, and then if found suitable it can be canned.

Tuberculosis is the most common disease in cattle and pigs, and the following indicates the method usually adopted in dealing with beef carcasses affected with that disease:—

- (1) Generalised tuberculosis. Condemn wholly.
- (2) Pharyngeal glands alone affected. Condemn head and tongue, pass the remainder of carcass.
- (3) Pharyngeal glands and thoracic glands affected. Condemn head and tongue, and, if the other lesions are



slight, can the remainder of the carcase ; if the lesions are marked, condemn the whole.

(4) Pharyngeal and mesenteric glands affected. Condemn head and tongue ; if the other lesions are slight, can the carcase ; if they are marked, condemn it.

(5) Pharyngeal, abdominal, and thoracic glands affected. Condemn the whole carcase.

(6) Similar conditions with lungs also affected. Condemn the whole carcase.

(7) Thoracic glands only affected. Pass the carcase.

(8) Abdominal glands only affected. Pass the carcase unless the lesions are extensive ; in that case can or condemn the carcase according to existing conditions.

(9) Thoracic glands and lungs affected. If very slight indeed, and not active, pass ; if more marked, can ; if at all extensive, condemn the whole carcase.

(10) Liver and hepatic glands affected. If slight pass the carcase, otherwise can it.

(11) Liver, hepatic, and mesenteric glands affected. If very slight indeed, pass the carcase ; if more marked, can it ; if at all extensive condemn it.

(12) Liver, hepatic, and mediastinal glands affected. Condemn the whole carcase.

(13) Liver, lungs, and mediastinal glands affected. Condemn the whole carcase.

(14) Lungs, mediastinal glands, and pleura affected. Condemn the whole carcase.

(15) Pleura affected. Condemn the whole carcase.

In the case of pigs the following is the procedure :—

(1) If the pharyngeal glands only affected, split the pig down the centre of the back and examine the bisected vertebrae ; if the vertebrae are free from tubercular lesions then condemn the head and tongue and pass the rest of the carcase ; if the vertebrae are affected condemn the whole carcase.

(2) If any other part of the pig is affected with tubercular lesions, no matter how slight, condemn the whole carcase.

Of course, on account of the frozen meat regulations of this country, no pigs, showing even the slightest trace of tuberculosis are exported, but are used exclusively for local consumption.

In sheep and lambs, the commonest affections are pleurisy and caseous adenitis, and carcasses so affected are dealt with according to the severity of the disease : no carcase affected with either of the above diseases is passed for export, but if the affections are mild or localised, they may be used for local consumption.

Attention is, of course, also paid to such conditions as emaciation, pregnancy, bruising, parasitic invasions, etc., but the actions of the inspectors in these call for no special comment.

In each of the above countries, regulations are also in force governing the construction and hygiene of all the slaughtering places, so that it will be seen every effort is made to ensure, in refrigerated meat, the supply of a pure and wholesome food stuff.

#### A UNIFORM AND INTERNATIONAL STANDARD OF MEAT INSPECTION.

From the foregoing, I think it may be accepted that refrigerated meat is subjected to adequate inspection in the countries of origin, and, if the earlier part of my paper is taken as evidence of the suitability of such meat as an article of food, then I think it not unreasonable to suggest that the inspection referred to be recognised at its true value and not ignored or discounted as is often the case at present.

Of course, it must be admitted that each country has a right to fix the standard of soundness and quality which will satisfy it, but when, as is the case in this country, there is no uniformity or standard of inspection, then dissatisfaction results.

Although refrigerated meat is freely admitted into Great Britain, yet after its arrival it is subjected to

inspection by many authorities, each of which acts independently of the others and frequently on different lines. Where the meat inspection here is under the control of a Veterinary Surgeon, it is found that due credit is given by him to his professional brethren in the exporting countries, but where, as is too often the case, the work is carried out by inspectors with an inadequate knowledge of the practice and principles of meat inspection, then it is noted that the inspection of the Veterinary Surgeon in the country of origin is oftentimes more or less ignored. This, I contend, is not as it should be, but would, I am afraid, be difficult to rectify ; the best solution would be the control of the whole of the meat inspection of this country by a Government Department, the work being carried out under the supervision of Veterinary Surgeons, but meanwhile I am of the opinion that much might be done if members of our profession made efforts to obtain control, as far as possible, of meat inspection in this country ; a standard might then be set to which importing countries could adhere, and due credit would then be given to the work of our *confrères* abroad.

While a few of the Continental countries admit refrigerated meat and recognise the veterinary inspection in the countries of origin as being a sufficient guarantee of the freedom of the meat from disease, the laws of others would seem to be based on the principle of distrusting the inspection of any country other than their own, and this, notwithstanding the fact that their internal meat supply is totally inadequate for the needs of their populations.

For instance, Germany has only 333 cattle and 124 sheep and France 367 cattle and 415 sheep per 1,000 population, yet these countries, so far, ignore the Veterinary Inspection of refrigerated meat in the countries of origin as to insist on internal organs being left in position and other equally impracticable conditions. Here again, in my opinion, the setting up of a uniform standard of inspection would be beneficial ; the standard could be decided by the Veterinarians of the receiving country, the authorities of the exporting country on their part guaranteeing to adhere to its provisions.

Considerable thought would require to be bestowed on this question before deciding the course of action to be adopted, and the difficulty is appreciably intensified by the lack of uniformity in this country, as this would almost prevent English Veterinary Surgeons taking the initiative.

At the same time, I consider that the formulation and adoption of a uniform and international standard of meat inspection is worthy of consideration, as not only would it be the means of increasing the healthy food supply of the people, but would improve the position of members of our profession and in addition would undoubtedly tend to increase the good feeling already existing between veterinary surgeons of various countries.

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## Royal College of Veterinary Surgeons.

The 70th Annual General Meeting of the Royal College of Veterinary Surgeons was held at the College, 10, Red Lion Square, London, W.C., on Wednesday, June 4th, 1913, the President, Professor A. E. Mettam, B.Sc., occupying the Chair.

The attendance was a very sparse one, only the following 17 members being present: Messrs. N. Almond, G. A. Banham, W. F. Barrett, J. Basil Buxton, J. H. Carter, F. W. Garnett, F. L. Gooch, F. T. G. Hobday, W. Hunting, Sir John M'Fadyean, H. A. McCormack, G. Rees-Mogg, W. J. Mulvey, Major-General Pringle, Messrs. James Rowe, W. Shipley, Major-General F. Smith, Mr. G. Thatcher (Solicitor) and Mr. F. Bullock (Secretary).

The SECRETARY having read the Notice convening the meeting, it was announced that apologies for absence had been received from Principal McCall, Mr. R. C. Trigger, Mr. J. Abson, and Dr. Bradley.

The SECRETARY read the Minutes of the 69th Annual General Meeting held at Dublin, which were confirmed.

### ELECTION OF NINE MEMBERS OF COUNCIL.

The SECRETARY read the following Scrutineers' Report with regard to the election of nine members of Council, June, 1913:—

"We, the undersigned Scrutineers, certify that the votes recorded in the voting papers for the several candidates nominated for election to the Council were as follows:—

Shipley	887	Shave	766
Mulvey	847	McCall	719
McKinna	841	Packman	610
Carter	840	J. Crowhurst	555
Price	795	Gofton	508
Sloccock	771		

There were no spoilt papers, but 65 papers were received too late. The signatures of the Scrutineers followed.

The PRESIDENT: Gentlemen, I have pleasure in declaring the following gentlemen elected Members of Council: Messrs. Shipley, Mulvey, McKinna, Carter, Price, Sloccock, Shave, McCall and Packman. Owing to the decease of Mr. Roberts and the fact that 9 members only had to be elected, one of the members that has just been elected must take the place of Mr. Roberts whose term of office would expire in 1914. It is usual to place the names of the elected in the ballot box and to draw lots as to who shall take the place of our late colleague.

The PRESIDENT then placed the names of the nine newly elected members in the ballot box, and drew one, containing the name of Mr. Shipley.

The PRESIDENT: Mr. Shipley will take the place of Mr. Roberts.

Mr. MULVEY: I have very great pleasure in proposing a cordial vote of thanks to the scrutineers for their onerous duties.

Mr. SHIPLEY: I have great pleasure in seconding that; they have had plenty of work to do.

The resolution was put and carried unanimously.

The PRESIDENT: The next business is to receive and adopt the annual report and financial statement. Will someone kindly propose that it be received?

Mr. CARTER: I move that.

Mr. G. REES-MOGG: I second that.

The resolution was carried unanimously.

The PRESIDENT: The report has been printed and circulated, and every member of the profession has had it in his hands. I suppose, therefore, we make it as being read. It is now open for discussion, and I shall be very glad to hear any observations upon it.

Mr. BANHAM: As there is no discussion, I propose that the report of the Council for 1913 be adopted.

Sir JOHN M'FADYEAN: I second that.

The resolution was put and carried unanimously.

The PRESIDENT: Is there any other business? If not, that concludes the business of the 70th annual meeting.

Mr. BARRETT: Gentlemen, I think you will agree with me that we ought not to disperse without moving a hearty vote of thanks to the President for his conduct in the chair. Prof. Mettam has come a very long way to preside over our meeting.

It is rather a tame affair, but perhaps the small attendance expresses the unanimity of the profession. I beg to move the resolution.

Mr. CARTER: I second that. Professor Mettam is, as I think you know, one of the most regular attendants at the meetings connected with the College, in fact I believe he has travelled something like 10,000 miles to attend those meetings during his Presidency.

The resolution was put to the meeting by Mr. Barrett and carried with acclamation.

The PRESIDENT, in reply, said: Gentlemen, I thank you very much indeed for the honour that you have paid me by passing this kind vote of thanks. It has always been a great pleasure to me to do what I possibly could for my profession; and, as Mr. Carter had said, during my period of office I have travelled something like 10,000 miles and attended something like 70 meetings. But that of course is only what my predecessors in the chair have done; the distance I have had to travel is simply due to the fact that I happen to live a long way from Red Lion Square. What I have done I have done with the greatest possible pleasure, and with the greatest possible hope that good may come from my occupancy in the chair. I thank you very much indeed, and I can only say that in the future as in the past I hope to be able to do what I possibly can to further the ends of my own profession. (Cheers).

The meeting then terminated.

### MIDLAND COUNTIES' VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting was held at the Town Hall, Wellington, Salop, on Tuesday, May 13th. The President, Mr. J. Martin, of Wellington, occupied the chair, and there were also present: Messrs. T. Chambers, H. L. Pemberton, W. H. Brooke, Brennan DeVine, F. L. Gooch, H. Collett, Geo. Smith, C. E. Dayus, E. H. Woodcock, T. Whyte, E. O'Neill, R. Murray, J. Thomson (Stafford), Clifford, Shifnal, and the Hon. Sec. Mr. H. J. Dawes. The visitors present were: Professor Wilson, Messrs. Connochie, Clunas, J. Martin, junr., and Hall.

Apologies for unavoidable absence were received from Sir John M'Fadyean, Professors Dewar, Hobday, McCall, Macqueen, Messrs. T. Slipper, G. Wartnaby, T. H. Duckworth, Prince, Reynolds, Grasby, Tart, R. C. Trigger, J. R. Carless, W. S. Carless, L. C. Tipper, J. Thompson, J. Blakeway, Parsons, F. W. Barling, T. Wilson, W. H. Pickering, R. Over, W. Blunsom, A. Over, J. T. Brain, E. W. Parks, W. Hunting, H. Franklin, R. Cockburn, W. E. Ison, S. Woodward, Jas. Blakeway, junr., T. Ludlow, F. H. Gibbings, E. Ringer, J. J. Burchinal, D. Forwell, T. H. Hobson, R. L. Phillips, Woodcock, Hughes, J. Malcolm, and others.

## THE PRESIDENT'S HOSPITALITY.

Before the meeting commenced, the company were entertained to luncheon by the President, whose health was afterwards proposed by the Hon. Sec. Mr. Dawes referred to the high esteem in which Mr. Martin was held in the profession, and he expressed the hope that his year of office would be a happy and successful one. The attendance that day was not as large as they had expected, but there were many reasons, of which it being holiday week was one, that kept members away.

Mr. BROOKE, as the ex-President, also offered a few remarks in support of the toast, which was very heartily drunk, and Mr. Martin acknowledged the compliment in suitable terms.

**Nominations and Elections.** The following names were put forward: Prof. W. T. WILSON, Harper Adams College, Newport, Salop, nominated by the President; Mr. R. CLUNAS, of Hodnet, nominated by the President; and Mr. J. MARTIN, jun., of Newport, Salop, nominated by the President.

The following gentlemen, duly nominated at the previous meeting, were now elected to membership of the Association:—

Mr. W. L. GASCOYNE (Lutterworth) proposed by the Hon. Sec. (on behalf of Mr. T. H. Hobson) and seconded by Mr. Pemberton; and

Mr. W. TRIGGER (Newcastle-under-Lyne) proposed by the Hon. Sec. (on behalf of Mr. J. Malcolm) and seconded by Mr. Chambers.

**The Next Quarterly Meeting.** The report of the Council, who met just prior to this meeting, was read. It stated that the next meeting of the Association would, according to rule, be held at Birmingham. Mr. B. DeVine had acceded to the Council's request that he should read a paper on Tuberculosis in the Cow, with a practical demonstration in the examination of milk. It was recommended by the Council that the Association pay any expense that Mr. DeVine is put to in providing a suitable subject for his demonstration.

On the motion of Mr. Whyte, seconded by Mr. Dayus, the report of the Council was accepted and the recommendation contained therein endorsed.

**Resignation tendered.** The Hon. Sec. read a letter he had received from Mr. James Blakeway tendering his resignation as a member of the Association. He was disinclined to accept it, said Mr. Dawes, and he moved that Mr. Blakeway be pressed to reconsider his decision.

This was seconded by Mr. DeVine, and Mr. Pemberton, in supporting, said the Blakeway family had been so intimately and so honourably connected with the Association such a long time that they could not afford to allow any of them to retire.

The PRESIDENT added that a man like Mr. James Blakeway was a credit to the Association, not only on personal but on professional grounds too, and they must not accept his resignation that day.

The motion was carried unanimously.

## THE INTERNATIONAL VETERINARY CONGRESS.

The Hon. Sec. reported upon the progress that was being made in the matter of raising funds for the entertainment of the International Congress in London. The number of donations given or promised by members of this Association, including those who had subscribed through other channels, amounted to £305 3s. There were still forty or fifty members who had not yet responded to his appeal, and he earnestly requested to contribute something, if it was only a trifle. It was for the profession as a whole. This was the first time the International Congress had been held in this country, and it must be remembered that abroad foreign Governments contributed handsomely to the local expenses

whilst in this country no official support was forthcoming. England must not be behind other countries in the matter of hospitality and it was consequently left to the veterinary profession to do what was necessary. Over fifty members of the Association had subscribed more or less to the fund, and it was scarcely fair that the burden should rest on the shoulders of the few. If these members who had not replied would subscribe a guinea a year for three years each it would make the Midland List one of the largest, and that was what he was aiming at.

Mr. GOOCH moved that a further circular be sent out to those who had not yet subscribed, inviting them to say "Yes" or "No." He could quite understand that it was imperative that the general treasurer of the fund should know what he was to expect before the character of the hospitality could be decided upon.

Mr. DeVINE seconded, and suggested that members of the profession in the Midlands who were not members of this Association and also be applied to.

The Hon. Sec. said he did not propose to canvass veterinary surgeons who were outside the Association as this was already being done. As long as he could get an answer to his inquiry, even if it was a refusal, he would be satisfied.

The motion was carried, and the Hon. Sec. had the satisfaction of adding the names of several gentlemen present to his list.

## THE LATE DR. HERBERT MANLEY.

The Hon. Sec. referred in sympathetic terms to the recent death of Dr. Herbert Manley, medical officer of health for West Bromwich, who for many years had been an honorary associate of this Association. Dr. Manley, he added, was recognised throughout the country as one of the leading men in his profession, and certainly the veterinary profession had never had a better friend. He moved that a letter of sympathy be sent from the Association to Mrs. Manley and family.

Mr. H. COLLETT seconded the motion which was agreed to.

## VETERINARY SURGEONS AND THE MILK BILL.

The Hon. Sec. reported that he had forwarded to the Royal College of Veterinary Surgeons a copy of the resolution passed by this Association at the last meeting and he had received a reply from Mr. Bullock, who pointed out that since the resolution was passed a new Milk and Dairies Bill had been issued. This new Bill, Mr. Bullock said, had been before the Parliamentary Committee of the College, who had passed the following resolutions:—

(a) *Milk and Dairies Bill.* "That in the opinion of this Committee the following amendments are required in this Bill: Section 2 (1) to substitute the words 'to take with him' in place of the words 'if accompanied by' in lines 6 and 7, the last clause thus reading 'and to take with him a veterinary inspector or some other properly qualified veterinary surgeon to inspect the cattle therein.' Section 2 (2) in line 21, to substitute for the words 'and the cattle therein if accompanied for the purpose of the inspection of the cattle by a veterinary inspector or some other qualified veterinary surgeon,' the words 'and shall require a veterinary inspector or some other properly qualified veterinary surgeon to accompany him and to examine the cattle therein.'"

(b) "That a sub-committee consisting of Dr. Bradley, Mr. Garnett, Sir John M'Fadyean, Prof. Mettam, Mr. Mulvey and the solicitor be appointed to take such action as they may consider necessary for the purpose of securing the insertion of these amendments in the Milk and Dairies' Bill and the Milk and Dairies (Scotland) Bill."

## THE DATES OF MEETINGS.

Mr. GOOCH, in accordance with notice duly given, moved an alteration to Rules 8 and 9 of the Association, by the addition of words requiring the Hon. Sec. to give each member twelve clear days notice of each meeting if it was not held on the regular day. He said many members belonged to other bodies, and expecting this Association to meet on certain fixed days made their arrangements accordingly. It was therefore inconvenient sometimes to find that this Association was meeting on a different day.

The Hon. Sec. explained the difficulty he was often in with regard to the date of a meeting. It was quite true that there were certain days mentioned in the rules, but it was necessary to consult the convenience of the essayist, not to mention the President, who they would agree ought to be allowed some latitude. He appreciated Mr. Gooch's point, and would personally undertake to give longer notice of a meeting if such meeting was not to take place on the regular day.

Mr. GOOCH said that would meet his objection, and after thanking the Hon. Sec. for his courtesy in the matter withdrew his motion.

## PRESIDENTIAL ADDRESS.

By Mr. J. MARTIN, M.R.C.V.S.

Gentlemen, first let me say how glad I am to see you in Wellington. I trust you will have a thoroughly enjoyable day here. And next let me express my deep sense of gratitude to you for the honour conferred upon me by your electing me as President for the ensuing year. You have my most sincere assurance that whatever duties may devolve upon me in connection with that position will be carried out to the best of my ability.

Few years in the history of our profession, which as a legally recognised body is still in its youth, have been of more importance than the next year or two promise to be. During the last decade we have been subjected to rapid and important changes. Some of these changes at first appeared likely to threaten our very existence; this variety has arisen from the daily increasing popularity of motor traction. The result has been the very serious contraction of town horse practices and the not inconsiderable loss sustained by many of us who practise in the country. The horse to-day, as a commercial animal is, in my opinion, of more value than since the year 1875, and I yet think that the heavier waggon horse and the trotting van horse will for many years maintain their respective values. As you all know, the hunter is of greater value to-day than ever, and there is more judgment expended on the breeding of it. As regards the riding type of horse, I firmly believe that the partiality of our present king and royal family for this enjoyable form of exercise will bring riding once more into vogue, and will of course create a demand for this class of horse. I notice our American cousins are following our lead in this respect. Judging from my experience, it is very difficult to get any sort of big upstanding carriage horse. I do not agree with the author who asserted that in 50 years the horse would have disappeared from our midst. In all probability the agricultural horse has a much longer future than that. At the same time I do think as populations increase and the area of agricultural land decreases we may in time, on certain class of lands, revert back to oxen traction, which, when that part of their life's work is done, can be utilised for human consumption. In connection with the army, my mind runs parallel with that of the late Sir Geo. Brown, when he said a long time must elapse before rival armies would be seen charging each other in motor cars, but as motor traction is developed it will be used to a very great extent in military tactics.

At the same time, the predominance of buyers in the markets, both for our home and foreign armies, shows that the demand for army horses is ever increasing. It is therefore quite reasonable to look for veterinary surgeons who will be required for many years to come for the treatment of agricultural stock, business, pleasure, and army horses. Nevertheless we must not close our eyes to the fact that as a profession, through motor traction, we are becoming less and less horse doctors, and probably the time will come when many veterinary surgeons will be practising who have never ridden or driven a horse. This need not be detrimental to the then scientific veterinary surgeon, as take the case of a very successful trainer of race horses, who, according to repute, has never ridden a horse in his life.

Where, then, will the bulk of the profession be engaged? And this is where another influence is operating—it is really only another call for adaption to circumstances. There was a time when the average veterinary surgeon would not condescend to look at a dog. Now, most of us do a little dog work, and some live entirely on dog practice. No one can deny it is both interesting and lucrative. Again, recent legislation, such as the Coal Mines Act, and the Order under the Board of Agriculture's horse breeding scheme, helps to bring grist to the mill. Although there has for a long time been a vegetarian movement on foot, the vast majority of people will not be satisfied with that form of diet, and it is therefore to the food animals that we must look for our future. Cattle practice, although less lucrative than horse practice has been, has a long future. It is an interesting pursuit, and is daily becoming more scientific. The conversion of feeding into dairy farm is, in my opinion, not a pecuniary gain for us, for I certainly find there is less professional attendance required on a dairy farm than on a feeding farm.

Apart from general practice the public are rapidly realising the need for a proper control of the milk and flesh food supply, as evidenced by the Tuberculosis Order and the proposed Milk and Dairies Bill. The Public Health question is one we must carefully watch if we desire to immediately appropriate the share which belongs to us. The public are also realising, although not so quickly, that veterinary surgeons are the proper people to be engaged in such work. The Tuberculosis Order cannot fail to produce much work for us if we look after ourselves. The position we hold under the Order differs in many respects from that held under the Contagious Diseases (Animals) Act. It is the first time we are holding a position of real authority and responsibility, and I think everyone of us should do his utmost to make himself competent to carry through this Order without any third party's interference or assistance. To assert our rights effectually we must present an unbroken front. We require organisation and we have the necessary weapon forming in our hands in the reconstructed National Veterinary Association, from the influence of which great things may be expected. Our grateful thanks are due to Mr. Trevor Spencer and the other gentlemen who were the means of calling those two very successful meetings in London, from which we have already derived great benefit. As regards the proposed lists of fees, I trust the newly-formed Association will bring pressure to bear upon the different societies and individual members to get them, if possible, universally adopted.

The Veterinary Staff of the Board of Agriculture has of late years assumed a vast importance. The effective way in which the recent outbreak of foot-and-mouth disease was handled was a masterpiece of organisation. That the country is appreciating its efforts we have proof of in the knighthood recently conferred upon Sir

Stewart Stockman. The colonies are every year adding to their veterinary staffs, for they have no difficulty in seeing the need for aid in combating the many diseases rife in their various spheres. The desirability of scientifically inquiring into the causation of diseases at home has attracted great attention, and we hear of a Government experimental station. The Dublin Veterinary School will soon be under Government control, and we trust the same will soon be true of the schools in England, at least, may they have pecuniary assistance. The progress of bacteriological and pathological investigation, in this country at any rate, has been seriously hampered by the fact that most of it has been the result of individual effort without sufficient money, and we look forward anxiously to the time when our schools will be amply subsidised.

Here I should like to say a word about pupilage. Judging from my long experience of assistants and improvers, I strongly advise intending members to see practice with country practitioners. The improvement in our status as a profession, which has become evident in recent years, will further increase with the number of men who take medical, science, and public health degrees. Now, gentlemen, I will trouble you for only a little longer while I refer to a point neglected by many of us and yet nevertheless of great importance. I refer to the preservation of clinical records, and the publication of those which warrant it. Certainly I am not the right one to refer to this question, but my own guilt in not recording cases leads me to advise others to put themselves into a position in which they cannot make the same confession. It is the duty of us all to record interesting cases in the journals, and no doubt more cases would be published were it not for the unkind criticism in which some of our members occasionally indulge. And while on the subject of clinical articles may I venture to compare some of the clinical notes of our press with those of our medical *confères*. It occurs to me that the chief cause of complaint in our articles as compared with those, say of *The British Medical Journal*, is the rather frequent occurrence of local slang terms in the former. These terms may be necessary when speaking to some clients, but they are unscientific, they convey little or no meaning to readers in other parts of the country, and they are quite out of place in an article in a scientific journal. Perhaps in time, with advanced education and better knowledge of bacteriology and pathology, we will gradually improve upon our terms.

I hope that at our future meetings members will endeavour to attend and support me. On looking down the list I was surprised to find my own county so poorly represented, but I trust that many more Shropshire practitioners will join us. May I now thank you for your attention, express once more my appreciation of your kindness in electing me as President, and again wish you an enjoyable and interesting meeting here.

On the motion of the Hon. Sec., seconded by Mr. Gooch, the President was thanked for his address, and requested to allow it to be published in the minutes of the meeting.

#### THE NEW TUBERCULOSIS ORDER.

The Hon. Sec. said he had put the new Tuberculosis Order on the agenda in the belief that some gentlemen present might like to discuss it. He thought that unless they were very careful the work would drift into the hands of whole-time inspectors. He reiterated the remarks of Sir Stewart Stockman, who said it behoved all veterinary surgeons who had anything to do with the Order to go carefully.

Prof. Wilson complained of the inadequate pay. It was impossible, too, for one man to control all the markets in Shropshire. He thought 2/6 was too small

a notification fee. Still, he thought nothing would be done about the Tuberculosis Order until the Milk Bill was passed.

Mr. DEVINE said veterinary surgeons in Birmingham were very agreeable to accept 2/6 as a fee for notifying a case. He did not think it was at all inadequate, and he said that as one who came into close contact with the general practitioner, and he knew their feelings fairly well. As to the suggestion that nothing was being done, he knew one County Council that had put by £10,000 to work the Order for one year alone. They attached considerable importance to the Order, and recognised that it would cost something to work it. It was quite wrong to say county councils were waiting. If there was a suspected case, county councils had to act, and if they did not do so they could be reported to the Board of Agriculture. This Tuberculosis Order was a thing not for the future only, but also for the present, and every honest practitioner ought to report a suspected case that came within his knowledge.

Mr. GOOCH said he could bear out what Mr. DeVine had said about what was already being done by certain county councils.

Mr. CLUNAS said he believed the Order would prove beneficial to the profession, and also to the farmers ultimately. There was a fear in the mind of the farmer that he was going to be pursued by an army of inspectors, and that was why he would sooner have the work done by the local practitioner.

Mr. CHAMBERS gave some particulars of the scheme that was being suggested in his district.

Mr. MURRAY: Are we justified in reporting any case until we have received our instructions.

Mr. CHAMBERS expressed the opinion that they were.

Mr. DEVINE, referring to a remark that the co-operation of the owner was necessary, said he did not think there would be any difficulty in getting the owner's permission to test a case, because if he refused there was power to keep the animal in, and the owner would stand to lose if that was put into force. Personally, he had never had any difficulty. It had been said that if they condemned every cow that was tuberculous they might have to condemn fifty per cent. of the animals; but this Order only dealt with cases of emaciation, and of tuberculosis of the udder, and there was not more than two per cent. of either of those class of cases.

#### CLINICAL NOTES.

**Rupture of Œsophagus.** Mr. DAYUS mentioned a case which engaged his attention some three months ago, and which he thought was unique. A yearling cart colt had a tremendous swelling down the neck and between the fore legs. The owner thought it had been kicked, or that there was some form of blood poisoning. He (Mr. Dayus) thought at first that it was a case of purpura. Upon examination, there was a soft place about the sternum which he opened. Very offensive stuff came out, which proved to be food—and partly solid food. He gave the colt a bucket of water to drink, and the water came out through the opening he had made. He cast the animal and made a larger incision, and at the entrance to the thorax—the Œsophagus was rather deeply seated—he could see food oozing out. There was a lot of slough because the food had been accumulating for three or four days. He cleaned the place and disinfected it, but made up his mind that the animal would die. Most of the food continued to ooze out, but finally it healed up and the colt made an uninterrupted recovery. He had never seen so large a rent in the Œsophagus heal of its own accord.

In reply to Mr. BROOKE, Mr. Dayus said there was no evidence since of stricture of the Œsophagus, and the animal was now quite better.

**Wire in Throat.** Mr. WHYTE: On the 23rd March, I was called to see a cow said to be suffering from noisy breathing and difficulty in swallowing. She had been taken ill the night before and was getting worse. She exhibited the usual signs of sore throat in cattle, namely, roaring during inspiration and expiration, tenderness and swelling of the throat and inability to swallow. Her temperature was normal. On placing a gag in her mouth and exploring her throat with my hand, my fingers came in contact with a piece of copper wire stuck transversely across the pharynx and penetrating the right side. I removed it and she quickly recovered. On measurement I found the wire was four inches long. From the bright appearance of the sharp cut ends it had evidently been through the chaff cutter shortly before being swallowed.

**Actinomycosis.** Mr. WHYTE: On Sept. 1st, 1908, I was called to see a seven-year-old mare which the owner said could not eat. He told me she had been ill about a fortnight and was gradually getting worse. I found the mare in an emaciated condition. Saliva was dribbling from the mouth. She was quite unable to eat, and could only drink with difficulty. On examination of the mouth I found the tongue enormously enlarged throughout its visible length. It was hard to the touch, and covered with sores. From my experience with cattle, I diagnosed the case as one of actinomycosis. I ordered her to be fed on liquids, and prescribed ounce doses of Pot. iodide 3iss., Hyd. biniod. grs. vi., and continued this for ten days. At the end of the second course—17 days after commencing treatment, the mare was apparently cured, but to guard against a relapse I gave her daily for the next eight days: Pot. iodid. 3i., Hyd. biniod. grs. vii. The mare made a complete and permanent recovery. It is interesting to note that she showed no signs of iodism.

**Blackleg.** Mr. WHYTE said: In the evening of Jan. 29 last I was called to see a bullock suspected to be suffering from blackleg. I found the owner's diagnosis correct. The animal had been noticed ill five hours before, and the owner had given him half a pound of mag. sulph. He was slightly lame on the left fore leg. There was distinct crepitation on palpation behind the left shoulder; the temperature was 103 F. and he was constipated. I gave him a drench containing Mag. sulph. lb. ii., Sulphur 3iv., Ol. tereb. 3i., Aeth. nit. 3ss. in half a gallon of warm gruel. I had the affected part well rubbed with a liquid blister of the following strength: Ol. croton 3ij., Aeth. sulph. 3iiss., Ol. tereb. 3xxxii., solution soft soap 3xxxii. I had him warmly clothed and further prescribed. Ol. tereb., Aeth. nit. aa. 3ss. every three hours in a quart of warm gruel. Next morning the bullock was brighter and the crepitation behind the shoulder had diminished; the bowels were acting freely. I ordered the half ounce doses of turpentine and nitrous ether every four instead of every three hours, and left a drench containing Mag. sulph. 3xii., Nux. vom. 3i. to be given in the evening. On the following day he was practically all right, and his appetite had returned. I may say that I have been treating this disease on similar lines for several years. My experience is that there is a good prospect of recovery when the case is taken in time. I was first put up to this method of treatment by a client. It was a matter of surprise to me that the huge doses of purgative medicine produced no ill-effects.

**Fracture of Tibia.** Mr. WHYTE: On the evening of the 15th of June, 1909, I was called to see an eleven-year-old Welsh hackney stallion which had been kicked by a mare. He was standing on three legs. There was a small wound about six inches above the near hock on

the inner side. On manipulating the leg there was crepitation at the side of the wound, and the leg could be swung in any direction at this point. It was clearly a case of fracture of the tibia six inches above the hock. I advised that he should be destroyed, but the owner would not consent and insisted on my treating the case. I inserted a tabloid of chinisol into the wound, set the leg in temporary splints, and tied him up for the night. Next morning I had him put in slings and set the leg in a more permanent manner. I immobilised the whole limb from the foot to the stifle, I melted in a pot a mixture consisting of black pitch two parts, burgundy pitch two parts, venice turpentine one part, and bees wax one part, and painted it directly on the skin commencing at the coronet and bandaging with calico roller bandages from below upwards. I also applied the adhesive mixture to the bandage to keep it from slipping. I thus covered the whole limb as far up as the stifle, the wound and the point of the hock were left uncovered. Next I gave the bandaging another coating of the adhesive mixture and allowed it to set, then applied wooden lath splints to the fetlock and hock joints and the tibia, and secured them by further bandaging, using the adhesive mixture freely. The wound healed without suppuration. The splints were kept on for 7½ weeks; when they were removed I found the bone had set. He was very lame, however, and on being released from the slings he went down after walking a few steps. I had him rested for another fortnight. During the second period his off hock became swollen and has remained so. The enlargement is of a bony nature. At the end of the fortnight he was removed home in a bull cart, as he could not walk the distance. He was turned out for the winter, and the off hock was blistered. He eventually went sound and has remained so. His owner drives him and uses him for stud purposes.

**Fractured Ulna.**—The Hon. Sec. said he had a case of fractured ulna in an aged carriage horse, and advised that the animal be slaughtered, but the owner decided to try and do something with it. He applied a plaster of Paris bandage which he kept up with supports from the shoulders. When taken out of the slings after five weeks the animal fell down, but it was put back in the slings for another three weeks and made a splendid recovery. It seemed impossible at first to believe such an old horse as this was would do any good.

Mr. O'NEIL mentioned the case of a cart horse that came under his notice. There was a swelling on the near side of the chest just where one would tap a horse for water on the chest. He thought the patient had been kicked, and concluded that there must be fluid. There was no fluid, however, when he opened it, but a little bowel came out. He put it back and fortunately nothing serious happened. The animal recovered.

Mr. BROOKE said he was called to a cow belonging to a gentleman who kept her for his private use. He would not go to the trouble of having her tested. Mr. Brooke looked at her and she appeared to be troubled with ordinary mammitis of one of the hind quarters. There was a little watery, curdly material coming away. The cow got very bad, with a temperature of 103 to 104 and took very little to eat. She gradually lost flesh and he advised destruction. At the post mortem, he found the quarter affected with a mixture of tubercle infection and ordinary mammitis. There was tubercle deposit in the liver, the lungs and the bronchial glands. The owner was very much alarmed, because his family had been drinking the milk from this particular cow, but he had not heard whether they had suffered in health in consequence.

**Intestinal Calculus.** Mr. BROOKE was called to see an aged pony which had been suffering from colic and from Saturday night to Tuesday morning it was troubled with ordinary colic pains. The patient had already had a colic dose, and he then gave it a fair dose



of aloes and followed it with enemata. As there was still no result, he made an examination per rectum. As far as he could reach with the tips of his fingers he could detect a stone. With some difficulty he was able to remove it. There was very little blood when he got the stone away, but when he reinserted his hand there was considerable hæmorrhage. He was afraid the animal would die, because it was taking nothing, and the temperature was still high, nor was there any bowel action. A similar stone had been passed by this same mare two years previously. It was as big as a man's fist and pyramidal in shape.

The HON. SEC. ventured the opinion that was another stone in the passage.

**Intestinal Calculi.** Mr. PEMBERTON said that some 12 years ago he had a similar experience with a waggon mare. She had colic and he gave an enema when the end struck something solid. He could just reach it with his hand, and putting his other hand up the vagina he assisted it away. Two days later she passed another stone and then a third one. She got perfectly right and was afterwards sold and worked for years.

Mr. O'NEILL mentioned a number of cases of obstruction in his experience which had proved fatal.

Mr. SMITH cited a case in which a piece of wire had penetrated for about an inch into the heart of a cow.

Mr. DEVINE exhibited several interesting post-mortem specimens. One was a split pastern, another a fracture of the suffraginis of a cab horse, and another a remarkable instance of canker in a horse's foot.

A very hearty vote of thanks was accorded to all who had contributed cases.

#### THE ROYAL SANITARY INSTITUTE.

The HON. SEC. reported that the usual invitation had been received for this Association to be represented at the forthcoming Congress of the Royal Sanitary Institute, which was to be held at Exeter in July. He moved that the invitation be accepted, and that the President be appointed to represent the Association, with the usual allowance for out-of-pocket expenses.

This was seconded by Mr. Brooke, and carried unanimously.

The members and visitors had tea together before leaving Wellington.

H. J. DAWES, F.R.C.V.S., Hon. Sec.

#### Tuberculosis in the Transvaal.

Every owner of a four-footed animal is greatly indebted to Mr. J. Irvine Smith, M.R.C.V.S., for his very interesting and valuable contribution to the evidence which was laid before the Sanitary Institute Congress which recently met in Johannesburg. It deals with tuberculosis, and has certainly advanced the discussion further than any previous statement on this important subject. It serves to show the intimate relationship between bovine and human tuberculosis, and puts forward a statistical report which should be of the utmost value in connection with any legislation which may be undertaken for the purpose of stamping out of the disease. It is conceived in a broad-minded spirit, and certainly places the case of the owner of tuberculous cattle in a light which is consistent with justice. Whether or not it will have any weight with our legislators remains to be seen, for they have played with the subject for a long time past, and seem just as little disposed to grasp the nettle as they always are when it is necessary to present a strong and united front in any matter directly affecting the general interests of the community.

The existence of tuberculosis among dairy cattle has been known for some years past, and many dairy

farmers have been treated in a very peremptory manner in regard thereto. Some have been absolutely ruined, and many more would have suffered the same fate had not the disease broken out among the cattle belonging to the Government at Potchefstroom. The Department which was so ready to destroy the cattle of the average man hesitated very seriously before putting its regulations into practice when Potchefstroom was concerned. I understand, however, that the decree has gone forth, and that these valuable animals are to be destroyed.

The Department has been strongly urged for years past to undertake investigations in respect of the prevalence of the disease in the Transvaal. It has been left to Mr. Smith to lead the way in what he calls a rough attempt to arrive at the extent of the danger. He deserves the thanks of the dairy farmers of the Union in particular. The Government Department are now possessed of some basis upon which they may be able to calculate what sum of money will be required to pay a rate of compensation commensurate with the principles of common fairness to such unfortunate owners of cattle who may have this disease in their herds.

I give the figures of Mr. Smith as far as they refer to bovines:—

Description.	No. slaughtered.	Cases of Tuberculosis.	Per cent.
Oxen and bulls	130,858	44	033
Africander cows	10,200	1	009
Heavy milch cows other than Africanders	120	77	64.16
Calves	7,081	2	028

It is quite possible that the high figure given as representing the percentage of tuberculosis among cows of heavy milking strains is excessive, owing to the fact that when a dairy cow is found to be "bad doer" she is not infrequently sent to the abattoirs. This fact should not be overlooked in the compilation of figures. On the other hand, the low percentage among oxen and bulls serves to show that the Africander breed is remarkably free from the disease, for it is to be presumed that that breed formed by far the larger proportion of the animals slaughtered.

#### ERADICATION AT £50,000.

If proof of the contention that the segregation of valuable animals would add very considerably to the wealth of the country (in the form of their progeny) were wanted, it is to be found in the fact that out of 7,081 slaughtered calves there were only two affected with tuberculosis. I venture to suggest that the percentage of these calves which had been dropped by heavy milking cows of the dairy type was a very large one. Mr. Smith refers to the available figures regarding the numbers of bovines in South Africa, as given in the recent census returns, and comes to the conclusion that there are probably some seven per cent. or 3,500 cases of tuberculosis among cattle of heavy milking strains, and some 1482 cases among oxen, bulls, and Africander cows. This makes a rough total of some 5,000 head of cattle affected by tuberculosis. Taking the average value of the milking cattle at £30 each, a compensation equal to one-half, would be roughly £50,000. At the present moment an animal is valued, and if slaughtered for tuberculosis, one-quarter of the value is paid out, but in no case can the amount paid out exceed £15. From this amount, I understand, the cost of slaughter, the value of the skin and the hoofs and horns, together with the value of the flesh, if it be usable, is deducted, thus frequently leaving the victim with a surplus the value of which it is difficult to estimate.—*The Transvaal Leader.*

## DISEASES OF ANIMALS ACTS 1894 to 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
Gr. BRITAIN. Week ended May 31	7		7				3	3	58	118	1	60	700
Corresponding week in	1912	5	5				3	4	31	64	1	80	868
	1911	11	12				3	7			3	59	759
	1910	42	44				6	16			2	48	540
Total for 22 weeks, 1913	282		303				76	222	1500	3074	120	991	14502
Corresponding period in	1912	454	508				73	153	1959	4360	161	1487	18731
	1911	422	515		1	18	91	248			300	1075	11556
	1910		704	857			157	423			312	569	5216

† Counties affected, animals attacked: Middlesex 2, Surrey 1.

Board of Agriculture and Fisheries, June 3, 1913.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
IRELAND. Week ended May 31	...	...	...	...	...	...	...	...	...	...	...	...	...
Corresponding Week in	1912	...	...	...	...	...	...	...	...	...	...	...	...
	1911	...	1	...	...	...	...	...	...	...	...	...	...
	1910	...	1	...	...	...	...	...	...	...	...	...	...
Total for 22 weeks, 1913	...	...	...	...	...	...	...	...	...	...	...	...	...
Corresponding period in	1912	...	2	...	...	...	...	...	...	...	...	...	...
	1911	...	5	...	...	...	1	2	...	...	...	...	...
	1910	...	4	...	...	...	1	2	...	...	...	...	...

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 2, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

## Food and Milk.

An interesting article by Signor Giuseppe Fascetti, originally published in the *Bullettino dell'Associazione Agraria Friulana*, is translated in the December Bulletin of the International Institute of Agriculture. He says that the appearance of industrial by-products now extensively used in feeding cattle, has raised a number of problems connected with physiology, the economics of animal husbandry and other subjects, about many of which, especially those relating to their effect on the character of animal products, much uncertainty still prevails. From the economic point of view the use of by-products represents the attainment, with the least expenditure, of the greatest possible production of meat, milk, or work. From the technical standpoint they must be considered in connection with the disturbing influences they may exert on the transformations of animal produce, while their hygienic aspect refers to the qualities and characters of the final produce which must not in any way be injurious as food, especially for children. The industrial by-product that successfully bear examination from these three points of view may be pronounced truly excellent. Such by-products are more numerous than is generally supposed, but there are not few of these industrial residues in which their economic advantages are not accompanied by corresponding hygienic merits. The writer treats chiefly of this latter group, limiting his considerations to the effects on milk only. The most common by-products of a vegetable nature may be divided into five groups:—Mill residues: Brans, pollards, sharps, grain, and potato starch. Factory residues: Potato, maize, wheat, rice pulps (both fresh and

dry), gluten. Sugar factory residues: Beet pulp (fresh dry, ensilaged, pressed), molasses. Residues from fermentation industries: Brewers' and distillers' grains (fresh and dry), malt and malt germs, wine pomace (fresh, dry, and free from stalks), pomace meal. Residues from seed oil factories: Oil cakes and oil cake meal.

## INJURIOUS BY-PRODUCTS.

Experience has proved that the by-products of the milling and starch industries when they have been kept wholesome do not impart to milk any property liable to impair its value as human food or as raw material for the dairy. A few of the by-products of the oil seed pressing factories have an unfavourable effect on the health of animals, so much so that some, colza cake for instance, can even cause their death, and on the properties of milk or some of its constituents. It has been repeatedly demonstrated that whilst oil cakes do not cause perceptible differences in the quantity of the fat content of milk, they alter significantly the proportion of the various glycerids which compose it and induce noticeable modifications in the character of the butter. Palm, cocoanut and linseed cakes, and cotton meal give the fat content of milk certain qualities that are not revealed by immediate analysis, but which show in the butter by a different consistence, melting point, etc., whereas wheat bran, sesamum cake, and beet slices raise the index of volatile acids. Among oilseed cakes the injurious ones are sufficiently distinguished from the good ones, among which linseed and maize cake occupy a prominent position. The by-products decidedly injurious to production of milk for infants and for the dairy are almost all the by-products of sugar factories and of the industries based on fermentation. The dangers attendant on the



use of these by-products does not lie so much in the very great amount of water they contain (in some cases as much as 90 per cent.) and consequently in their poverty in utilisable materials, as in the rapid deterioration to which they are liable, and to the toxic substances which are formed in them. Only of late years have they become the subject of scientific research. They bear both upon the quantitative as well as upon the qualitative composition of milk. Quantitatively they cause variations in the percentage of the constituents of milk; fat, lactose, proteids, and ash, as is ascertained by a summary analysis: Qualitatively they modify the general physical, chemical and fermentative properties of milk, and usually escape detection by a summary analysis.

#### EFFECT ON THE QUALITY OF MILK.

Industrial by-products, as all forage influence, within certain limits, the proportion between the various components of milk, even when they are very rich in water or possess recognised galactopoietic properties. Among the constituents of milk only two—fat and casein, undergo variation. This observation has been verified on all hands, and it has been authoritatively confirmed by the classical work of Prof. Orla Jensen, who by a series of minute and patient experiments has arrived at the conclusion that the food supplied to milch cows does not produce appreciable variations in the composition of their milk. This statement appears to be in glaring contrast with the practical observations, which points to a certain connection between the nature of the food and the characters of the milk. The contradiction, however, is only apparent, because from the practical point of view that connection is meant to refer not so much to the percentage of the components as to the goodness of the milk considered in its intrinsic qualities of odour and pleasing taste, as perceived by our senses, by the digestive organs of infants, which, as Porcher acutely observes, are a more delicate test than the most sensitive chemical method of analysis because they reveal the presence in milk of properties and qualities that pass unnoticed by the chemist.

In this connection it is enough to recall the rapidity with which diarrhoea attacks children nourished with milk yielded by cows fed on fresh turnip leaves; the high rate of mortality, up to 54 per cent., in babies at Ingolstadt because the cows are fed to a great extent with the by-products of the numerous breweries of the town, the chronic gastro-enteritis observed by Tallemier at Saint Just en Chaussée due to the milk of cows fed on the residues of sugar refining.

If these examples lead to the conclusion that the use of industrial by-products is to be condemned in the production of milk for infants, that is from the hygienic point of view; the same be said from the technical standpoint as regards cheese-making, and this in accordance with the most recent scientific views, which consider the alterations and diseases of milk to be due, not so much to the action of special micro-organisms as to the special condition of the milk plasma, which Peter defines as "fermentative predisposition of milk," an expression that is admitted and endorsed by Burri and by Barthel.

The predisposition to become the field of activity of one rather than of another ferment, or which renders it unsuitable for cheese-making, appears to be due to some alteration in the milk as a chemical medium. *Farm and Home.*

"What is the best place wherein to keep the milk perfectly nice and fresh during, say, a hot summer day?" asked the teacher of Hygiene.

And one girl, evidently thinking it was an easy one, promptly answered: "Please, teacher, in the cow!"

#### The Swiss Constitution and Tuberculosis.

A Federal Referendum on the revision of Articles 69 and 31 (Par. 2) of the Constitution has resulted in the acceptance of the alteration by a majority of 57,000.

The effect of this revision will be to enable the Government, and not the Cantons, to deal with especially dangerous, widespread, or malignant diseases of men and animals. The measure is aimed especially at tuberculosis, but also at cancer, goitre, puerperal fever, and feeble-mindedness such as wholly to incapacitate a person from earning a living even by mechanical work. Tuberculosis is responsible for about one-seventh of the deaths annually occurring in Switzerland. The mortality from cancer, according to the Swiss medical profession, is higher than in any other country on whose mortality statistics reliance can be placed.—*The Times.*

#### Tuberculosis Order in Cornwall.

The provisions of the Tuberculosis Order are being zealously carried into effect by the Local Authority of the Camelford district. During May the veterinary inspector (Mr. Wm. Langdon) subjected 13 animals to the tuberculin test. As a result seven have been slaughtered and two succumbed after the test before the arrangements for slaughter had been completed. In two cases the animals did not respond to the test, and are therefore not affected with tuberculosis. The remainder are being treated under the "test." The test has been applied in the parishes of St. Teath, Tintagel, Davidstow, Lanteglos, and Lesnewth, the cases in the two latter parishes being not affected.—*The Western Morning News.*

#### A Novel Cæsarean Section.

Although no doubt such a proceeding as the following is fairly common in veterinary practice, it is not every day that a general practitioner is called upon at a moment's notice to perform a canine Cæsarean section.

I was attending a club patient in the North of England one day when my attention was drawn to a lovely specimen of a Yorkshire terrier, which was lying on its side on a couch apparently in extremis. The eyes were filming over and its poor attempts to wag its tail when spoken to were really pitiful to watch. Its time for parturition had passed about a week previously, and no puppy had been forthcoming. The condition evidently required urgent operative interference or the bitch was doomed. As the animal was a very valuable one I decided to do my best for it, relying on my scanty knowledge of canine anatomy derived from my necessary biological studies. However, I did not see any reason why a proceeding after the style of a complete Porro-cæsarean section should not answer. My wife is a fully trained surgical sister from London, and I left all necessary sterilising in her hands, while I turned a disused bedroom into an apology for an operating theatre. The table consisted of a marble-topped washstand with the back removed.

The bitch was anaesthetised in its mistress's arms and then fastened to the table by tying the two front paws to the legs of the table, and the two hind paws to the other legs of the table. The animal was thus fixed in position with its belly upwards. The district nurse continued the anaesthetic under my directions, as well that is to say as she could for amusement at the novelty of her patient.

Everything was then done as if the patient had been human, the skin being carefully sterilised and the necessary towels being placed around the area for operation.

I opened in the middle line, and out popped the head of a very large black fetus, whose father must

have been at least a retriever. I ligatured the soft tissues above and below the offending object and cut between ligatures both above and below. These stumps thus left after removal of the of the overcharged uterus were tied together by ligatures. The wound was closed in one layer. Gauze dressings were then applied and bandaged firmly on. This was further protected by a silicate bandage from chest to tail. Catheterisation was needed on the second day, but otherwise a perfectly uninterrupted recovery was made. The bandages were soaked off on the fourteenth day, and the bitch allowed to go about on her legs again. The wound had healed by first intention, and no sign of a hernia could be found at the end of eighteen months.

The motto, therefore, for a G.P. in the country who is forty miles from the nearest veterinary surgeon is to go on and do it, and trust to Providence to look after his patient if it happens not to be human.—By H. GORDON WEBB, M.R.C.S., L.R.C.P., in *The Hospital*.

#### Colloidal Copper in the Treatment of Cancer.

Drs. Loeb, McClurg, and Sweek contribute to *Interstate Medical Journal* (St. Louis, Missouri) for Dec., 1912, a report based on the recent work of Wassermann on the effects of intravenous injections of selenium and eosin on mice. They claim good results from the injection of a colloidal solution of copper in cases of ulcerated cancer in man. They first tested the effect of various copper preparations on mouse carcinoma, and then applied the method to man, using a colloidal solution of copper prepared according to Bredig's method. Each patient received daily an intravenous injection of from 300 to 400 c.cm. of the solution warmed to about the normal temperature of the blood and introduced slowly into the vein. Usually injections were given every week, and were always followed by a temporary rise of temperature. The tumour became hyperæmic and sensitive in a few hours, and the discharge from any ulcerated part increased, but after about fifteen injections both these symptoms disappeared and distinct retrogression of the tumour became noticeable. This retrogression seemed continuous. The authors of the paper urge that their treatment seems effective in causing the retrogression of various kinds of cancer which have till now withstood other modes of treatment. They admit that a definite judgment on the ultimate outcome must be suspended. Like other observers, they point out that mouse cancer is an extremely malignant disease, and if controllable by agents introduced into the blood carriers, carcinoma in man may be yet more effectively controlled by similar means.

#### ARMY VETERINARY SERVICE.

##### BIRTHDAY HONOURS.

The King has been graciously pleased to make the following appointments to the Most Eminent Order of the Indian Empire.—

C. I. E.

\* \* \* \* \*  
Major George Kemp Walker, Indian Civil Veterinary Department, Professor of Sanitary Science, Punjab Veterinary College, Punjab.

His Majesty the King held a Levée on Monday, June 2nd, at Buckingham Palace. The following presentations were made, the names having been previously left at the Lord Chamberlain's Office and submitted to His Majesty for approval:—

\* \* \* \* \*  
Vet.-Capt. G. Rees-Mogg, 1st Life Guards, by the Gold Stick in Waiting.

#### OBITUARY.

TOM SUNMAN BRIGHAM, M.R.C.V.S., Bridlington, York.  
Graduated, Lond: April, 1869.

Mr. Brigham died on May 30th, from cancer of the liver and stomach. Aged 70 years.

#### CORRESPONDENCE.

##### THE FINANCES OF THE R.C.V.S.

Sir,

I do not think that the opponents of the guinea tax will voluntarily pay that sum. They have not received any answer to the enquiry as to what the Council intend to do with £3440 per annum.

I have not observed that any of the Members of Council have contributed, and your suggestion that the opponents should give them the lead is a novel one.

Is the motto of the Council with respect to this question "Give us your money and we will spend it."—Yours faithfully,

HALF-A-GUINEA.

##### SALE OF TUBERCULIN.

Dear Sir,

Now that the tuberculosis campaign is on, would it not be well for our Council to restrict the sale of "Tuberculin." A client of mine—a dairy farmer—told me to-day that he could get Tuberculin and test his own cows; a friend of his in an adjoining county has already done so.

It seems that a farmer with ordinary intelligence can, by the aid of the agricultural journals and medicine firms, do without the veterinary surgeon altogether.—Yours faithfully,

PERCY WELCH, M.R.C.V.S.

Saffron Walden, June 3.

Sir,

In this week's issue of *The Record* I notice a few remarks reported to have been spoken at a meeting of the Western Counties' Veterinary Medical Association.

Some men evidently want what any veterinary surgeon who is at all cognisant with modern knowledge, is anxious to avoid—namely whole time inspectors to work the Tuberculosis Order of 1913. Were there no younger members of the profession present to protest against the pitiable spectacle the deputation must have presented to the County Committee, when most of the other veterinary associations are endeavouring and not in vain to obtain the work for the proper party—the veterinary profession?

Is it to be wondered at that we only get 3rd class fare?

The probable result of the deputation will be—their wish will be granted and the order placed in more competent hands, also the money; and the profession will have to be content with the half-crown. I enclose my card.

POST GRADUATE.

A MONOGRAPH ON JOHNE'S DISEASE, by F. W. Twort, M.R.C.S., Eng., L.R.C.P., Lond., Superintendent of the Brown Institution, Univ. of Lond: and G. L. Y. Ingram, M.R.C.V.S. late Veterinary Surgeon to the Brown Institution. Demy 8vo. pp. vi. + 178, with 9 photo plates. Cloth, lettered, 6/- net. Ballière, Tindall & Cox, 8 Henrietta Street, London, W.C.

PRACTICAL BACTERIOLOGY, MICROBIOLOGY AND SERUM THERAPY (Medical and Veterinary), a text book for laboratory use, by Dr. A. Besson, formerly Director of Bacteriological Laboratories of the Military Hospitals of France, translated and adapted from the fifth French edition by H. J. Hutchens, D.S.O., Heath Professor of Comparative Pathology and Bacteriology of the Univ. Durham. Royal 8vo. pp. xxx. + 892 with 416 illustrations, 149 of which are coloured. Cloth, lettered: 36/- net. Longmans, Green and Co., 39 Paternoster Row, London, E.C.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1301.

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## AN OLD COMPLAINT.

Mr. J. Martin, of Wellington, in his Presidential address to the Midland Counties V.M.A., alluded to the duty of recording clinical cases. In doing so, he owned to having himself been remiss in this particular, and added "but my own guilt in not recording cases leads me to advise others to put themselves into a position in which they cannot make the same confession." Of how large a proportion of our members—including many of the best of us—this is typical! Comparatively few veterinary surgeons record cases at all, and very few indeed record them with anything like regularity. And yet practically all will agree that more cases ought to be recorded, and that the lack of them is one of the great reproaches upon our profession. We all know this, but somehow we fail individually to attempt to take any part in removing that reproach.

The fault, of course, lies with almost all our members. Ever since veterinary journals were first published in this country, a few men have done their duty in recording cases. But they have always been a very few, the majority, while ready enough to read records, never contribute any. Of late years, we think that more men have reported cases than ever before, but their number is still pitifully small. If the work of a few contributors—far less than one per cent. of the profession—could be erased from the journals of the last decade, the paucity of our clinical records would be something too dreadful to contemplate. On the other hand, if half the men in practice would each report one case every year, the journals would be filled to overflowing. These hypotheses show us something of the deplorable apathy of nearly all veterinary surgeons in recording cases. One of the most inexplicable features of it is that, now as always, we often find men who grudge neither time nor trouble to the service of the profession in other directions, and yet will not spare the few minutes necessary to report a case.

Mr. Martin advocated "the preservation of clinical records, and the publication of those which warrant it." This, which practically amounts to the keeping of a casebook, is undoubtedly the best plan. Some members will not care to go so far, and one thing may be said to these—Any case which has interested the man who has seen it is certain to interest some others, if they have the chance of reading a report of it. All men in practice see such cases, and to record them is a duty to the profession.

## PSEUDO GLANDERS.

By W. R. DAVIS, M.R.C.V.S., Enfield.

Mr. Henry Gray, in the chapter on Ulcerous Lymphangitis in the Horse (in the System of Veterinary Medicine, edited by Wallis Hoare) mentions a form of pseudo-glanders described by DeHaan and Hooskamp due to hyphomycosis *destrueus equi* as being characterised by a malignant mycosis affecting the skin, the buccal membrane, and nasal mucosa, resulting in the formation of ulcers and subsequent necrosis. I believe that I have seen a case, though it must be very unusual in this country.

About five years ago I had under treatment a pony which, on my first being called to it, had ulceration of the gums about the incisor teeth. This was treated locally by Chlorate of potash and internally with Bicarbonate of soda, the parts healed, and the animal appeared to have recovered. Soon, however, the skin of the face showed numerous patches, about the size of a florin, raised above the surface by infiltration, the hairs fell out, the epidermis was removed and a raw sore resulted which showed no tendency to heal. Subsequently similar patches by confluence forming large areas, developed on the thorax, abdomen, quarters, perineum, vulva, and mucous membrane of the vagina.

Iodide of potassium and biniodide of mercury were given by the mouth, and intravenous injections of iodine, while locally the patches were dressed with tincture of iodine, without result in staying the progress of the malady.

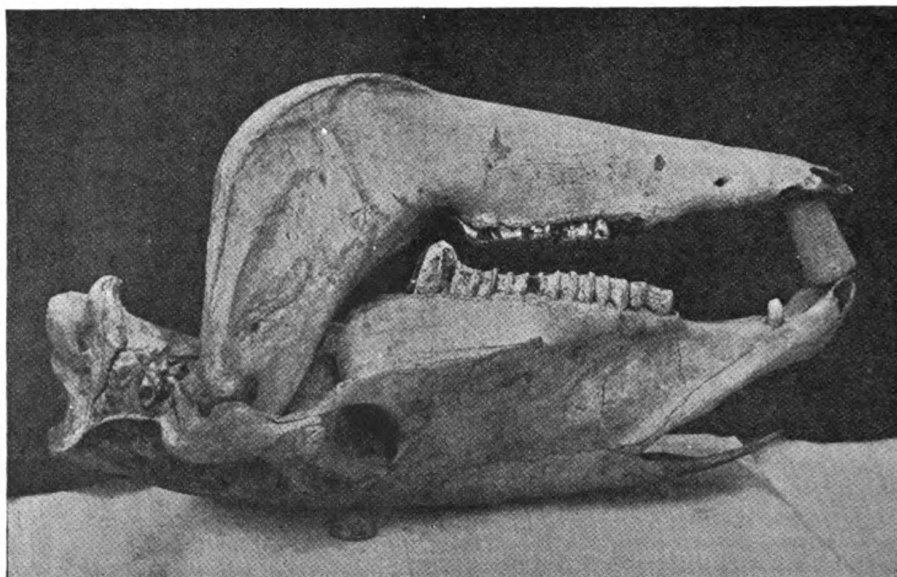
Prof. Penberthy was called in consultation, and so far as I can recollect he had never seen a similar case. At his suggestion increased doses of iodine were given, and the linimentum iodi was applied locally. However, as no improvement took place and as the animal became much emaciated the owner had the pony shot. I made a post mortem. The ulceration of the vaginal mucosa extended to the uterus, but there were no gross lesions of any of the internal organs. I examined pus and scrapings from the raw surfaces for tubercle and actinomyces several times, but found nothing except pyogenic organisms. I feel pretty certain now that the malady was due to a mould-fungus, and probably to the one mentioned above.

## AN UNUSUAL SEQUEL TO CASTRATION.

On May 3rd I operated on three colts, two two-year-olds, one yearling. Because the others drove the yearling away from the trough, he was taken in every evening, through a very dirty yard, and kept in for the night. The two-year-olds were turned away in about four days' time and recovery was uneventful. On the fourth day the yearling began to swell down the near hind leg and along the belly

and sternum; in about a week the skin sloughed from the scrotum to the sternum along the near side with a width of about nine inches; there was also a bad slough on the near side of the scrotum, and a smaller slough on the inside of thigh. The colt never went off his feed and is now recovered, and has been turned away. It was evidently a case of bacterial infection contracted whilst going through the yard, or in the loose box which was covered with peat moss.

ARNOLD SPICER, F.R.C.V.S.



## A DENTAL ABNORMALITY.

Enclosed are photos of an aged horse's teeth, which at first sight do not appear to show any extraordinary abnormality, beyond the interesting hollowing of the lower jaw and defective growth of the molars therein, but a count of the upper ones will show that the condition is one of some interest. Injury caused by an overgrown molar is more common than usually thought.

FRAS. EVELYN PLACE.

Department of Agriculture,  
Victoria Square, Adelaide.

## AN EXTRAORDINARY INJURY.

On Sunday morning last, June 1, I was called to see a two-year-old pony filly, which had injured her off hind leg. On reaching the field where the animal was turned out, I found her down, unable to rise, and an immense swelling over the region of the off stifle, and upwards to the hip joint. The

particulars that were given me by the owner were as follows:

A neighbouring farmer had seen the pony early that morning, struggling in the field, and on reaching her discovered that she was cast, with her off hind foot tightly entangled in her mane, and so securely was her foot tied up that a considerable portion of her mane had to be cut off to free the leg. She had evidently been cast in this extraordinary fashion for some hours, as the grass around showed signs of her desperate struggles to free herself.

On examination and manipulation of the leg the injuries (terrific ligament and muscle rupture) were found to be so severe that the animal had to be destroyed.

I have heard of a horse being cast, by the calkin of his hind shoe, being firmly fixed in the mouth, but of course in this case the animal had no shoes on, and it strikes me as a case worthy of report, and may interest other members of the profession.

J. C. S. POWELL, M.R.C.V.S.

Clevedon, nr. Bristol,

## ABSTRACTS FROM FOREIGN JOURNALS.

FOREIGN BODY IN THE OESOPHAGUS OF THE DOG:  
CURIOUS RESULTANT LESIONS.

L. and E. Lépinay (*Revue de Pathologie Comparée*) report the case of a setter bitch, two years old, which presented pulmonary disturbances. For 48 hours she had been very dyspneic, had refused all food, remained lying down, and was constantly agitated and manifesting signs of great suffering. The only history that could be obtained was that a practitioner had examined the throat and had withdrawn some fragments of bone.

At the moment of examination, the dog showed intense dyspnea. The respirations were 70 per minute. The temperature was 101.3° F.; and the pulse could not be counted. The thorax was considerably dilated on both sides. Palpation of the thorax revealed sensitive parts which it was impossible to localise clearly. Percussion showed a considerable dullness of all the inferior part of the thorax; and it was also found that this dullness varied in accordance with the position in which the dog was placed. Auscultation yielded all the signs of a pleural effusion complicated with a pneumothorax.

The chest was punctured upon each side, with the result that blood was withdrawn through the canula. The animal died next day.

Post-mortem, the thoracic cavities were found to be almost completely filled with blood. The lungs were retracted towards the hilum. The oesophagus contained a foreign body in the form of a bone, the sharp angles of which had projected not only into the mediastinum, but also into both pleural cavities.

This bone had the shape of a triangular pyramid, the base of which was turned towards the superior orifice. It was situated about two fingers' breadth below the bifurcation of the trachea. Two of its angles had ulcerated and perforated the anterior wall of the oesophagus; and these were the angles which had probably caused the hæmo-pneumothorax. The third angle had pierced through the oesophageal tunics of the posterior aspect of the gullet.

Foreign bodies in the oesophagus of the dog are not rare. The authors, however, regard this case as particularly interesting, on account of the form and position of the foreign body concerned, and the lesions and symptoms which it provoked.—(*Annales de Méd. Vét.*)

CYSTIC OVARY AS A CAUSE OF INTESTINAL  
IMPACTION.

Letard, of Paris, reports (*Soc. Cent. de Méd. Vét.*) the following case. The subject was a Percheron mare, fifteen years old, which had been doing fast work for ten years. She became affected with rather violent colic, which, as she had had a double ration, was attributed to indigestion.

Treatment for indigestion, including the injection of ½ grain of arecoline, was applied without benefit.

After some time the pulse became hard. The horse was then bled (six litres, or approximately about 10½ pints, of blood being abstracted) and pilocarpine (1½ grains) was also injected. All these measures were without result.

Tympany supervened; and the abdomen was then punctured. The mare strained to defecate, but without effect.

Rectal exploration revealed a constriction of the intestine, which seemed to be caused by a tumour placed at the entry to the pelvis. The mare died within 48 hours.

Post-mortem examination revealed a cyst of the right ovary weighing more than 5 kilogrammes (5 kilogrammes = about 11lbs.), and measuring about the size of a man's head. This cyst was suspended from the broad ligament of the uterus, and was compressing the terminal portion of the floating colon upon the pubic symphysis. The left ovary was also cystic, but in it the cysts were only small. A small myxoma was also found upon the muscular band of the large colon.

The cystic swelling of the right ovary was certainly of long standing; but it had never caused any trouble.—(*Annales de Méd. Vét.*)

EPIZOOTIC ABORTION IN MARES AND  
POLYARTHRITIS IN FOALS.

Dassonville and Rivière report (*Revue Generale de Méd. Vét.*) the result of lengthy studies and researches they have made upon this subject. Their opportunity arose through a double epizootic of abortion in mares and polyarthritis in newly-born foals which occurred in a single breeding stud in 1907. The authors found one and the same microbe in a pure condition (1) in all the tissues of an arthritic foal born in surroundings which were infected with epizootic abortion and, in which the few foals that had been carried their full term, were affected with arthritis, and (2) in all the tissues of three foals which were aborted by mares living in surroundings different from the preceding ones, but equally infected with epizootic abortion.

This microbe is very different to that of Bang, which causes epizootic abortion in cows. It is also very different to that which Smith and Kilborne have described in connection with epizootic abortion in mares. Perhaps it may be related to Polakow's microbe. It is pathogenic for female guinea-pigs, in which abortion may be induced not only by a filtrate of the cultures of the microbe, but also by certain products extracted from this filtrate by alcohol. The filtrate is also pathogenic for female rabbits. Guinea-pigs can be vaccinated against the microbe, and their serum then seems to possess properties of agglutination and complement-fixation. Similarly, the sera of the three mares referred to above, which had aborted, showed agglutinating properties and appeared to deviate the complement, one year after abortion had taken place.

Absolute proof that this microbe was the cause of the epizootic is lacking, as no experiments upon pregnant mares have been made. So far as they go, however, the authors' observations afford very strong evidence that the one microbe, infecting the

uterus of mares, may lead in some cases to abortion, and in others permit an apparently normal gestation, but infect the foals with arthritis or various lesions.

The results of the investigations of the sera encourage the hope that very probably it will be found possible to devise diagnostic methods adaptable to practice, by which it may be decided whether mares destined for reproduction are infected with the microbe or not. Finally, the authors conclude that, in the present state of our knowledge, the epizootic abortion of mares should be considered essentially different to that of cows.—(*Annales de Méd. Vét.*)

W. R. C.

# REPORT ON THE VETERINARY DEPARTMENT OF THE GOVERNMENT OF THE GOLD COAST FOR THE YEAR 1911.

## [ABSTRACT].

*Staff.* The staff sanctioned for the year was one Veterinary Officer at £400, one Veterinary dispenser at £60, one dispenser pupil at £24, and one 6th Grade clerk at £25. I arrived in the Colony on the 4th January and resumed my duties as Veterinary Officer controlling affairs until the end of the year.

Mr. Quansah, Veterinary Dispenser, 4th Grade, continues to carry out his duties in a capable manner. Mr. Anyawuo was taken on probation as a dispenser pupil on the 1st June. Mr. Sarpong applied for the post of clerk, and was engaged on six months' probation from the 1st June.

*Clinical Work.* The clinical work treats with the diagnosis and treatment of all sick animals and poultry brought to the premises free of charge. A feature of this work has been the confidence of the natives who have only this year begun to bring their horses and dogs for treatment. These animals are often brought when in a dying condition. The case of fistulous withers was a bad one in an animal belonging to the Hausa Chief and needed an operation and cutting off about an inch of bone from the tops of two dorsal and two lumbar vertebrae.

The cases included Congestion of liver, 4; Eczema, 6; Irregular teeth, 4; Seborrhœa, 3; Sore back, 3; Sprained tendons, 6; Trypanosomiasis, 8; Worms, 5. The total treated was 68, with 7 deaths, and 59 cured.

No cattle or sheep were treated in the clinics, these animals being only imported for slaughter.

*Farriery.* The farriery class teaches cold shoeing. The work was found too much in this section for one man, consequently three additional men were added in the month of June.

The number of shoes put on during the ten months was 297, and during this period there were two cases of nail binding, these were not serious.

The shoeing work at the close of the year was handed over to the Pioneer Company Gold Coast Regiment, but will still have my supervision.

*Cattle Trade.* The trade in cattle from the French Territory north of the Northern Territories Protectorate, and from the Ivory Coast shows an increase.

At the commencement of the year the cattle traders were informed that all cattle were to be inspected by this department before they would be allowed into Coomassie.

A site was cleared on a hill outside the Zongo, and cattle wait here for their inspection which takes place

about 5 p.m. daily. Last year I impressed on these importers that the principal factor in contributing to the emaciation of some of the cattle was that they were overdriven along the roads, this is particularly so in Ashanti from Mampong to Coomassie where there is absence of good grazing. During the year the cattle imported have been of a better quality and of larger size. Those imported by the Frenchmen particularly have been fine animals. This trade is yearly increasing and should be fostered by forming a grazing area here. The price of live cattle fluctuated from £4 to £8 depending on the season and the number in the market for sale.

The number of cattle imported for year ending 31st December, was 7,905 humped; 746 not humped.

Slaughter House, Coomassie. The slaughterhouse is under the control of the Medical Department, but numerous visits were made by myself and my dispenser during the hours of slaughtering for the collection of blood smears and specimens. I am indebted to the Acting Provincial Medical Officer for the slaughterhouse statistics for 1911. The total of animals killed for consumption was: Cattle, 3,960; sheep, 1,142; goats, 2,572; pigs, 287.

Cattle are exported from Coomassie by railway and by road, those entrucked at the railway station are to supply the mining centres and the towns of Secondee, those exported by road were up to the year 1910 principally to supply the suburban villages, but during the year 1911 some have been exported by road, owing to the scarcity of cattle trucks, to Obuassie, Bekwai, and Bibiani. The demand for meat consumption at these centres on the railway is greater than the supply of cattle.

Two complaints were received during the year, the first from Mr. Miller, food contractor representing the Tarquah Syndicate of Mines; he visited my offices and complained of the scarcity of the meat supply. The second complaint was from the Medical Officer of Health, Obuassie, requesting that cattle should be inspected the day prior to their exportation by railway, which will be carried out next year.

The total carried by the railway was 4,047.

By comparing the number of cattle killed at Coomassie and the number exported by the railway with the number of cattle imported into Coomassie, there is a total difference of 644 cattle, which may be taken as representing the trade carried on by road exportation from Coomassie.

*Hides.* During the year 1909 and 1910 in my different interviews with the north country cattle traders I used frequently to speak about their hide trade, and I asked them to bring hides to Coomassie. This is becoming an increasing trade. There are no statistics kept of the number of hides imported or exported from Coomassie, but the estimate I am now furnishing has been based on the return kindly furnished me by an agent of one of the principal trading firms, plus the trade which I estimate done by other trading firms here. The number exported from Coomassie was about 8,500 skins. The price of sun dried hides during the year ranged from 4½d. to 5½d. per lb.

*Tours of Inspection.* I made four tours of inspection during the year.

Mr. Quansah, Veterinary Dispenser, was despatched into the North Western Province of Ashanti to investigate the cause of the mortality which had occurred among cattle in this province. He was absent 22 days.

During the year, 165 days were spent on tours of inspection and investigation.

On these tours of inspection, clinical work is undertaken whilst I am in residence at the station. Veterinary advice is willingly given to persons, or firms desiring advice, benefit of which was taken by the



trading firms at Accra, who employ horses and mules in their transport work.

The total number of cattle inspected in the Accra and Addah Districts was 1,183.

**Contagious and Infectious Diseases.**—This section refers to the more important contagious and infectious diseases which have been diagnosed in horses, cattle, and poultry. Those diagnosed in cattle have been based on post-mortems, and results of microscopic examination of blood smears from the slaughter-house and elsewhere.

**Anthrax.** There has been three outbreaks of Anthrax during the year, two occurred at Coomassie and 4 cattle died, the other at Salaga in which 3 cattle died.

**Contagious Bovine Pleuro-Pneumonia.** Two Epidemics of this disease occurred. The first epidemic was in the North Western Province of Ashanti. Mr. Quansah, Veterinary Dispenser, who toured this district reported, that, practically all the cattle had died at the villages of Tachimen, Wenki and Mangi. The original was traced to the imported French cattle from the Buntuku district. The villages mentioned are on the main cattle route from the Ivory Coast. The second epidemic occurred in the Accra and Addah districts. The total number of reported deaths was 370.

During the months of February and March, I saw 17 cases of this disease among imported Moshie cattle at Salaga, Northern Territories Protectorate. Numerous cases were also seen in the Coomassie Slaughter House during the last three-quarters of the year.

**Epizootic Lymphangitis.** There were two cases of this disease seen at Coomassie.

**Filariasis.** Three cases of filarial infection were met with in imported horses. The species of filarial embryos has not been diagnosed, but those seen did not possess a sheath.

**Fowl Cholera.** There have been two epidemics of this disease at Coomassie, the first epidemic occurred during the first quarter among the poultry belonging to the Police Commissioner, the second epidemic occurred during the third quarter amongst the poultry kept by the soldiers in their lines. This last epidemic was a serious one affecting fowls and ducks, and killing in all about one hundred birds.

**Piroplasmiasis.** This disease has been diagnosed at Coomassie among the imported cattle. Two cases were diagnosed clinically, a third case was seen in a moribund bullock. Microscopic examination of the blood of these animals revealed the presence of *Piroplasma Bigeminum*.

**Trypanosomiasis.** The species of trypanosomes diagnosed as causing this disease were *T. pecaui* *T. cazal-boui*, in imported cattle and horses. There were two cases of *T. dimorphon* infection met with in imported English dogs. These species have been diagnosed by careful microscopic observation, no experimental inoculation has been carried out, owing to want of the necessary buildings.

Some success has been met with in the treatment of this disease in horses. What is known as the combination method was adopted, this is the administration of a salt of Arsenic alternating with some other preparations of arsenic or some other drug as for example Atoxyl and Orpiment, Orsudan and Orpiment, Orsudan and Antimony, Atoxyl and Antimony. These combinations merit further trial on a more generous scale.

During the year there were 20 horses treated for this disease, 8 were cured and living at the end of the year, 3 died under treatment, 2 died under treatment from Verminous Enteritis, 2 were shot as no hope of recovery was anticipated, 2 were poisoned in intravenous injections, one was shot for divided tendons during the convalescent stage, and two were still under treatment at the close of the year.

Attention has been given to Preventive Measures, as the majority of horses contract this disease on their journey down to Coomassie. I recommended Arsenic (Orsudan Grs. XX.) to be given on alternate days when horses are trekking through tsetse fly country. Extra precautions have to be taken when going through notorious fly belts. Smearing the horses with a preparation of pounded tobacco rubbed down with Moshi butter, lightly applied over the whole body. The natives practise a similar method, but apply the preparation in the form of two crosses on each side of the quarters—probably a custom of fetish origin—but the prophylactic qualities of the application undoubtedly consists of the strong odour which the dressing emits and its bitter properties.

**Entomology.** Over 300 tsetse flies were caught while journeying up and down the road from Coomassie to Salaga. Attention has only been paid to biting flies as *Glossina*, *Tabanus* and *Hippobosca*. I am indebted to Doctor Graham of the Medical Research Laboratory for identifying 50 specimens.

*Glossina palpalis*, was found on the road at Ninting, Bosumcheche, Ejura, Prang, Yeji, and Makongo. *G. tachinoidea*, was found from Ejura to Salaga, it is exceedingly common at Makongo. *G. fusca*, was found between Bosumcheche to Ejura. This belt of fusca has extended down to Bosumcheche. *G. fusca* were caught at Ejura by me in 1909. *G. nigro-fusca*, one specimen was caught and is preserved at the Museum of the Medical Research Institute Lagos. *G. longipalpis* was found from Attabubu along the road to within a mile of Salaga. *G. morsitans* was found at Ejura, Attabubu Prang, Yeji, and Makongo.

**Helminthology.** The helminths collected during the year were numerous. The trouble and time spent in killing, preserving and staining specimens for examination can only be fully appreciated by persons having a knowledge of this. Some specimens took 7 days to prepare for examination.

	Locality.	Animal.	Situation.
<i>Fasciola angusta</i>	Coomassie	Cattle, sheep	Liver, duodenum, lung.
<i>Paramphistomum cotylophorum</i>	"	Cattle	Rumen.
<i>Gastrodiscus aegyptiacus</i>	"	Horse	Cæcum.
<i>Gastrothylax crumeniferum</i>	Sunyani	Cattle	Rumen.
<i>Cysticercus tenuicollis</i>	Coomassie, Accra	Sheep, goat	Peritoneal cavity.
" <i>cellulosa</i>	Accra	Pig	Voluntary & involuntary muscle
<i>Monezia denticulata</i>	Coomassie	Cattle	Small intestine.
<i>Tænia marginata</i>	Accra	Dog	Large bowel.
<i>Spiroptera microstomum</i>	Coomassie	Horse	Stomach.
" <i>macrostomum</i>	"	"	"
<i>Filaria papillosa</i>	Coomassie, Accra	"	Peritoneal cavity.
<i>Sclerostomum tetracanthum</i>	"	"	Large colon.
<i>Strongylus armatus</i>	"	"	"
<i>Hæmonchus contortus</i>	"	Cattle, sheep	Abomasum.
<i>Oxyuris curvula</i>	Salaga, Csie, Accra	Horse	Rectum.

*Botany.* The following grasses were collected by myself at Salaga and were pointed out to me by a native horse dealer as being good grasses for feeding. I am indebted to Mr. Miles, Curator Agricultural Department, for identifying the specimens, and comparing them with the dried specimens of grasses in the herbarium at Kew:—*Cymbopogon rufus*, *Eragrostis aspera*, *Eragrostis trenaule*, *Oryza silvestris*, *Arachis hypogea*. The latter is of interest as being the original of the cultivated form of *Arachis* the pea or ground nut, and makes an excellent green fodder, or dried as hay.

W. P. B. BEAL, Vety. Officer.

The Honourable,  
The Colonial Secretary, Accra.

#### VICTORIA VETERINARY BENEVOLENT FUND

The annual general meeting was held at 10 Red Lion Square, London, on Wednesday, June 4th. Present:—Mr. W. Freeman Barrett, President; Sir John McFadyen; Messrs. G. Thatcher, N. Almond, G. Banham, F. Gooch, H. McCormack, J. H. Carter, F. Garnett, A. E. Mettam, F. Hobday, W. Mulvey, F. Bullock, and Wm. Shipley, Secretary.

The minutes of the previous annual general meeting were taken as read.

On the proposition of Mr. McCormack, seconded by Mr. J. Carter, the annual report was received, and after discussion it was adopted, on the proposition of Mr. J. H. Carter, seconded by Mr. Banham.

*Council.*—Mr. W. S. Mulvey, Prof. Penberthy, Prof. Shave, Messrs. C. Sheather, W. Shipley, P. J. Simpson, and S. H. Slocock were re-elected, with the addition of Mr. A. E. West, of Gray's Inn Road, London.

*Auditors.* Messrs. Woodger and Lark were re-elected with a hearty vote of thanks for their services, on the proposition of Mr. McCormack, seconded by Mr. J. H. Carter.

An urgent appeal was made by the President that the members of the profession should give more serious consideration of the claims of the Fund in their charity, in order that the good work which is being done may be more aptly carried out.

The proposition by the Chairman, seconded by Mr. J. H. Carter, of a vote of thanks to the Secretary for the preparation of the report was duly carried.

The SECRETARY would like to take this opportunity to acknowledge the support which he has received from his friends in the profession, and he only hopes that the slow and steady progress the Fund is making will be continued.

If he were able to indicate to each individual subscriber the pathetic appeals and sympathetic acknowledgements of the little help we are able to give, he feels assured that there is no member of the profession who is able who would refuse to help. He is also anxious to forward to anyone the rules and objects of the Association, and to give any information which may be desired.

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
GT. BRITAIN.													
Week ended June 7	11		11				5	5	36	58		60	807
Corresponding week in	1912		11				4	6	34	84	1	83	1249
	1911	9	12				5	9			2	65	824
	1910		27	29			6	31				43	446
Total for 23 weeks, 1913	293		214				80	229	1536	3132	120	1051	15309
Corresponding period in	1912	465	519				77	159	1933	4444	162	1570	19980
	1911	431	527		1	18	96	257			302	1140	12380
	1910		731	886			163	454			312	612	5662

† Counties affected, animals attacked: Durham 1, London 3, York, West Riding 1.

Board of Agriculture and Fisheries, June 10, 1913.

IRELAND.	Week ended June 7							Outbreaks	3	3	19
		...	...	...	...	...	...	1			
Corresponding Week in	1912	...	...	...	...	...	...	...	1	3	25
	1911	...	...	...	...	...	1	2	1	2	3
	1910	...	...	...	...	...	...	...	1	5	107
Total for 23 weeks, 1913		...	...	...	...	...	...	88	291	75	449
Corresponding period in	1912	...	2	2	...	...	...	39	252	124	1175
	1911	...	5	6	...	...	2	3	40	51	981
	1910	...	4	7	...	...	1	2	34	49	1155

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 9, 1913

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



### The Approval of Sheep Dips.

Dr. Dobbie, Chief Government Chemist, in evidence given before the Select Committee of the House of Commons on Proprietary Medicines, gave information on certain regulations devised by the Board of Agriculture and Fisheries.

Certain suggestions had been made, on the one hand, in connection with the formula of proprietary medicines that the names of the ingredients should be printed on the label, and, on the other hand, that the name of the medicine should be registered, together with particulars of any poison that might be contained. The regulations of the Board of Agriculture and Fisheries in regard to sheep dips, while requiring an examination of the formula, secured that the various makers' formulae were not divulged to competitors. Care was taken that within certain limits freedom of competition and manufacture were maintained.

Sheep were required to be dipped with a dip approved as efficient by the Board of Agriculture and Fisheries. To secure this the dip must contain an effective preparation, and one or more of the ingredients must be authoritatively tested. The makers might include in the sheep dip other ingredients which might contain valuable properties.

The formulae varied considerably both in the character and manner of mixing. In order to have a dip approved the maker must submit a sample of it to the Board together with the complete formula, which was treated confidentially. If an inspection showed that the dip would be unsatisfactory it was rejected.

If the formula was satisfactory, an analysis of the sample was made to see whether it conformed to the formula.

These regulations, witness added, had not destroyed competition in the production of dips.

Dr. Dobbie suggested that in these regulations the Committee might find some hints. It might be possible to have a disclosure in regard to patent medicines which would protect the interests of the public and at the same time protect the interests of the proprietor.—*Pharmaceutical Journal*.

### Tuberculosis Order in East Riding.

At a meeting of the East Riding County Council, the Diseases of Animals Committee presented a report by the clerk on the Tuberculosis Order of 1913, and recommended that Mr. Hickes, F.R.C.V.S., be requested to carry out the Order at a separate salary of £300 per annum, with travelling expenses, for one year from May 1, 1913; also that Mr. Hickes be empowered to obtain when necessary the assistance of a veterinary surgeon at a fee of one guinea when engaged not more than half a day, and two guineas when engaged more than half a day, with actual travelling expenses.

Lord Middleton, in moving the adoption of the report, said the new Order was issued as the result of long investigations by Royal Commissions, extending over the last twenty years, as to whether the disease of tuberculosis might be communicated by animals to human beings. In order to stamp out the disease all affected cattle were to be slaughtered, and no doubt there would be many disputes as to whether animals were really affected. But at any rate the Council as a public authority had to do their best to carry out the Order. He believed there were 96,000 head of cattle in the Riding, and it was estimated that about 400 head might be diseased. It was obvious that this would take a good deal of investigation, and in order to provide for this the committee had recommended the appointment of Mr. Hickes. His lordship added that the work was

exceptional and difficult, and that while the Government paid one-half of the cost of compensation the county, in addition to the other half, had to bear the expense of carrying out the Order.

Major Langdale asked what would happen if a short-horn worth, say, £1,000, were found to be diseased? The Order was not very clear, and he imagined it might lead to a great deal of expense.

The report was adopted.—*The Farmer and Stock-breeder*.

### Volatile Products Evolved during Ensilage of Maize.

In a great many agricultural districts, forage for cattle and other animals is preserved in silos, that is, in deep cavities in the ground, in which the material is pressed down and covered up with earth to protect from contact with the air. Fermentation takes place during which there are formed substances which give to the feeding stuff a peculiar flavour, much relished by the animals to which the material is fed during the winter months when the ordinary feeding stuffs are scarce. The fermentation which takes place has been studied to some extent, and it has recently been noted that during the ensilage of maize there are formed the following volatile acids:—

Formic acid	17 per cent.
Acetic acid	75 "
Propionic acid	8 "
Butyric acid	0.6 "

Other volatile products are alcohols containing 21 per cent. of Methyl. alcohol, 7 per cent. Ethyl alcohol, and 7 per cent. Propyl. alcohol; but apparently no ethers were found.—*La Nature*.

### The Value of "Activators" in Foods.

The following excerpts are from the concluding paragraphs of a report on "The Nutritional Importance of the presence in Diets of minute amounts of certain Accessory Subjects," which appeared in *The British Medical Journal* of April 5:—

"The particular importance of small amounts of substances of unknown composition in the metabolism of growing animals appears from the interesting researches of Osborne and Mendel (1911) and Hopkins (1912). These investigators have shown that when diets consisting of the requisite proteins, fats, carbohydrates, and salts capable of maintaining adult rats in weight and health were administered to young animals, although they might keep them healthy, they totally failed to promote their growth. When, however, very small amounts of milk from which the proteins had been eliminated were added to the diet, growth proceeded normally. The nature of the substances present in the protein-free milk so essential for growth is unknown.

Of the three substances respectively necessary for the prevention of beri-beri and of scurvy and the promotion of growth, we at present possess some knowledge of only one—namely, the antineuritic agent. These substances exist only in small amount in food materials, but they are so extremely active that minute quantities are sufficient to supply the needs of the organism. The presence of the substances in such low concentration, however, is the great obstacle to their isolation on a large scale, and this is accentuated by the considerable loss in active material incurred during the necessary chemical manipulations. Thus 0.001 gram a day of the anti-beri-beri substance seems adequate for the pigeon's organism, and this is contained in about 5 grams of barley (the daily amount required to prevent polyneuritis in pigeons fed on polished rice), so that to obtain a sufficient amount of the active substance for chemical and physiological

experiments a large quantity of material must be utilised.

The nutrition of an animal is thus seen to depend not only upon the supply of proteins, carbohydrates, fats, and inorganic material, but also upon the presence in the diet of certain accessory substances, small amounts of which are sufficient to supply the needs of the organism. As the active substances are distributed most irregularly amongst foodstuffs (this is true at any rate in the case of the antineuritic and antiscorbutic agents), the nutritive value of food material cannot be accurately expressed in terms of its composition and potential energy, unless the content of the accessory substances is taken into consideration. The experience of agriculturists—that expectations based on the results of chemical analysis as to the nutritive and fattening values of food materials are frequently not justified in practice, may find an explanation in facts of the order of those detailed in this article.

E. A. COOPER,  
Beit Memorial Fellow, Lister Institute."

#### Foot-and-mouth Disease in Man: Aphthous Fever.

At a meeting of the Section of Medicine, of the Royal Academy of Medicine in Ireland, early this year.

Dr. C. M. O'BRIEN read a paper on this subject. A veterinary inspector, aged 35, was bitten last summer by a sheep on the forefinger of the left hand. He applied an antiseptic dressing to the wounded finger, and continued his daily examinations. Three weeks later an abscess developed, and was opened with every antiseptic precaution. No pus escaped, and the wound refused to heal. Over a month after the finger was bitten, redness and swelling appeared on both hands, accompanied by itching of the parts, with a few small, raised, white swellings like little lumps under the skin, especially in the clefts of the fingers. By night time there was slight itching of the upper part of both feet, with a prickly sensation in both soles, becoming worse on walking. The patient complained of malaise for a day or two previously. He then consulted Dr. O'Brien, who found that he had always enjoyed excellent health excepting for an attack of scarlet fever which he contracted at the age of 10. The fingers and dorsal aspect of both hands were markedly swollen and covered with a dull reddish, raised rash, extending to an inch above both wrists; it caused itching. Vesicles in process of formation were observable here and there over the surface of the rash, especially between the fingers and round the nails. The wound on the injured finger gaped, but no pus issued from it. There was no perceptible involvement of the lymphatic glands. A few vesicles were observable on the fauces, on the inside of the lips, on the gums, and the side of the tongue which was swollen and somewhat tender. Speech, deglutition, and mastication were painful, and the saliva was copious. The temperature never exceeded 100°. There was no evidence of any visceral complication. The next day all the symptoms increased and saliva trickled from the mouth. Ruptured vesicles on the fauces now formed small shallow ulcers, with dark red bases. The patient made an uninterrupted recovery, and resumed professional duty within two months. Dr. O'Brien in his paper dealt very fully with the literature of foot-and-mouth disease in man from the first recorded case in 1695 down to the present day.

Prof. METTAM said that the incidence of the disease was much greater on the Continent, especially in Russia and France, than in these islands. In one instance the disease was produced in a calf by inoculation with the pus taken from a vesicle on a boy. In 1880 there was a large outbreak amongst persons in Dover who had con-

sumed the milk of cows suffering from foot-and-mouth disease, and at the time it was noticed that the incidence of the disease was greater amongst those who had used the cream. Diagnosis of this disease was difficult, as the germ was not known. A 300th part of a cubic centimetre of the pus taken from a vesicle was capable of setting up a lesion in cattle, in which there was little difficulty in diagnosis. Lesions often occurred in the mammary gland, and it was probably in this way that the infection was carried to the milk. In the case just reported the period of incubation seemed long, as in the lower animals it was generally from two to four days. As soon as the vesicles ruptured the temperature went down and the lesions rapidly healed. Within a week or so there was an epithelial covering to the corium, and as soon as this took place infection had passed.—*British Medical Journal*.

#### ANNUAL REPORT FOR THE YEAR 1912 BY THE VETERINARY INSPECTOR FOR THE CITY OF LONDON.

[ABSTRACT].

To the Worshipful the Cattle Markets Committee.

Gentlemen,—I have the honour of submitting to you a report on the duties performed *re* the Diseases of Animals Acts within the City of London, also the County of London, *re* foreign Animals, for the year ending 31st December, 1912.

The duties have been further increased during the year by the issue of the American Gooseberry Mildew (Fruit) Order of 1912.

During the year the numbers of animals killed at the Aldgate Slaughterhouses were as follows:—

	1912.	1911.
Cattle	14,951	11,407
Sheep	19,881	21,628
Calves	12,037	10,955
Goats	9	9
Total	4,6878	43,999

*Foot-and-Mouth Disease*.—No cases of the disease were observed within the City. As the importation of animals from the United States of America and Canada has evidently diminished to a negligible quantity, it is of the greatest importance that this country should be kept free from the disease, otherwise we shall have to depend still more than ever on imported meat. Even the presence of the disease in Ireland has tended to increase the importation of dead meat from that country.

*Rabies: Anthrax*.—No cases of either was observed.

*Glanders*.—Although a considerable number of horses presented for examination at Custom House Quay, in the opinions of the Veterinary Inspector for the Board of Agriculture and the Assistant to your Veterinary Inspector, presented symptoms which led to their being tested with mallein, none of them showed a definite reaction. One gave an indefinite reaction, and with the owner's consent the animal was sent to a knacker's yard. Post-mortem examination showed other disease, but no glanders. Therefore no case of the disease was observed within the City during the year.

*Stables and Horses within the City*.—By the courtesy of the Commissioner of Police (Sir J. Nott-Bower) a list of stables within the City was supplied. Inspector Stephens has made visits to those premises during the year, and reports: 33 stables; 841 stalls; 43 loose boxes; 811 horses.

*Animals (Transit and General) Order, 1912*.—The railway station has been visited regularly to ensure that the Order was carried out satisfactorily. On one

The outline account of the military scheme which has been drawn up from the available public and private records, enables some life to be infused into the dry details of facts, and endeavours to present an account of matters which permit them to be visualized by the mind's eye. The events are taken, as far as possible, in sequence and if the structure fails here and there to be evenly erected, it is due to the paramount importance of some operations over others. By some it may be urged that the account given is more of military than professional interest, but a little reflection will show how impossible it is to relate what was demanded from the horses unless the framework of the military operations is known. The two cannot be considered apart, and when we understand the one we can realize the other, but the converse is not true.

### TRANSCAAL.

#### NOOITGEDACHT.

#### OPERATIONS WESTERN TRANSCAAL

DEC., 1900—FEB., 1901.

We have seen nothing of the Western Transvaal since Paget left Rustenburg and proceeded to Rhenoster Kop, p. 112. The Western Transvaal was now quiet, Broadwood's Cavalry Brigade patrolled the mountain range and was kept active by various reports as to the movements of the enemy, for it was known that De la Rey was present, though out of sight, and roving bands, especially to the west of the mountains, caused a great deal of marching and counter-marching. As a matter of fact, Botha, who we saw at p. 100 had escaped north, had on reaching Pietersburg developed a bold scheme of offensive, this being no less than the capture of Johannesburg and the isolation of Pretoria. All that he had to do was to clear away the obstructions which lay between the Magaliesberg and Johannesburg on the west, and the chief of these was Clement's force which was based on Krugersdorp, and operated north of that town in the direction of the mountains. Broadwood, though under Clements, was frequently some distance away, and De la Rey's object was to keep them apart by means of roving bands to the west. Rustenburg, though occupied by Cunningham, could do little but guard the large dépôt formed there. The road from Rustenburg to Pretoria had for some time been free from marauding bands, the mountains having been carefully cleared, in fact it was now considered by many "as safe as Piccadilly,"\* and the supply convoys passed to and fro in perfect safety. De la Rey now needed supplies, and being informed of an empty convoy of 260 waggons returning to Pretoria for filling up, he decided to seize it on its return. For this purpose he crossed the mountain range from south to north, and on Dec. 3 attacked the convoy on its return while Clements was lying at Krugersdorp. The convoy was eight miles in length; fortunately it was in two portions separated by a gap

of six miles, and only the advance portion was attacked. The defence made by the handful of men who formed the escort lasted all day; in the end 126 waggons of supplies and 1862 oxen were captured. This was the first stroke, the second fell a day or two later.

Clements, on hearing of the disaster moved out of Krugersdorp in the direction of the Magaliesberg and reached Nooitgedacht on Dec. 8. Broadwood was being drawn to the west by reports of attacks in that direction, and to the east by orders from Clements. Three times did he return to the western end of the mountain range in obedience to warnings of attack, all of which were part of the strategy of the enemy in keeping him apart from Clements, who was now in camp under the shadow of the mountains, in a very bad position. Botha at Pietersburg sent to De la Rey a force of 1600 men under General Beyers, a young, active man and first-class fighter. Their journey from Pietersburg south to the Magaliesberg was known to the British, but the man who most needed the information, Clements, had not been informed. Beyers pushed south at first slowly and then with a rush, covering 60 miles on the night of the 11th. The significance of this forced march must not be lost sight of, and shows what the slender, hard, active pony of the country was capable of doing, though not considered good enough for our mounted forces. De la Rey lay to the west of Clements, and a combined attack of Beyers from the north and the former from the west on the camp of Clements was arranged. Beyers with his tired horses had to scale the Magaliesberg, on the top of which, at an altitude of over 6000 feet, pickets from Clements' camp were maintained in order to keep touch with Broadwood by signal. A thousand feet below lay Clements' camp at Nooitgedacht, connected with the heights by a steep ravine. At midnight on Dec. 12, Beyers' exhausted horses were once more saddled and ascended the mountain. He had not reached the top before firing was heard. The attack on the west by De la Rey had begun before dawn, and after desperate fighting with heavy losses he had been repulsed. Beyers was now on the heights, and opening fire on the infantry pickets destroyed them in a short time. He then opened on the camp, the first indication to Clements that his pickets had been destroyed, while the enemy poured down the ravine into the camp and began looting. The problem facing Clements was how to withdraw his guns† and baggage train in the face of a destructive fire. It was accomplished after extraordinary difficulties; the whole force retreated to a fresh position on a

† The safety of the heavy gun caused great anxiety. The team was shot down, and the gun subsequently man-handled to a place of safety. An attempt was then made by a few volunteers of the Fife and Forfar Yeomanry to save the ammunition waggon. Among these was Mr. Andrew Spreull, jun., a veterinary student (now M.R.C.V.S.), who was serving in the ranks of the F. and F. I.Y.; he was subsequently mentioned in despatches for his share in the day's work.

\* Official History, Vol. IV, p. 3.

hill and shelled its late camp which was now in full possession of the enemy. In the new position Clements was again attacked by De la Rey, whose artillery fire stampeded the transport, which had been collected at such risk only a short time before. The baggage train stampeded south into the arms of the enveloping commandos. Then was seen a sight such, perhaps, as never previously occurred in war. The General turned stock-rider, galloped with his staff after the transport, and actually succeeded in heading it off and turning it in the direction of the position it had bolted from. So close was the enemy that his A.D.C. was captured. It was a fine feat, and if not the duty of a General, it was at least an object lesson to the remnant on the hill of his unconquerable spirit under a dire misfortune. After suffering heavy loss the force was permitted to retire practically unmolested, and a night march brought it to Reitfontein, 23 miles east, on the morning of Dec. 14.

Clements had with him at Nooitgedacht 600 mounted troops, exclusive of artillery, and his loss in the disaster amounted to 900 animals. This is inclusive of transport,\* of which we have no exact record. The heavy loss in horses is attributable to the fact that the first attack fell upon the M.I., and the horses were under no cover but exposed in a fire-swept camp. The F. and F. Yeomanry lost 22 out of 62 present.

As usual in such cases, a large retaliatory force was poured into the Western Transvaal, but the enemy could not be brought to book, and keeping south of the Magaliesberg dispersed into the west and south-west. Four columns of 6000 men now swept in this direction on a broad front towards Ventersdorp, but without success. It was now near the end of December, and a fresh combination of columns, based on Ventersdorp, was made in the endeavour to net De la Rey and Beyers. On Jan. 5 contact was obtained with De la Rey south-west of Oliphant's Nek, but it only resulted in the Imperial Light Horse being ambushed and 70 horses killed. De la Rey yielded under pressure, was pursued, but nothing resulted. Meanwhile Beyers had separated from him, and going east into what ought to have proved the jaws of the lion, he passed by Paget, who had been brought to stop him, and actually had the audacity to camp within 10 miles of Johannesburg. He next crossed the Johannesburg-Pretoria railway. Attacked the line in two places, blew it up, and took his transport across. The 2nd Cavalry Brigade was sent after him from Johannesburg, but he disappeared east. Equally unsuccessful were the operations in the west against De la Rey, which still continued. Cunningham in Rustenburg was directed to move out through Oliphant's Nek south, and prevent De la Rey going east. His camp was attacked next day, Jan. 24, by the man he was sent out to block, who captured an M.I. picket and held up Cunningham for two days, inflicting relatively heavy loss, until he was relieved by a column from Ventersdorp. Cunningham then

went with his force to Krugersdorp, which he reached on January 30.

The great success of the Republican Forces in December was followed by active recruiting, and a fresh commando formed by De la Rey was given to a young lawyer, J. C. Smuts,\* who had received his legal education in England, and whose name was now heard of for the first time. In the middle of January Smuts, with his commando, drawn from the Ventersdorp district, moved east, south of the Magaliesberg, and attacked a post 22 miles from Krugersdorp. The post was captured on Jan. 31. The nearest relief was Cunningham who was now at Krugersdorp; with 800 mounted men and infantry he attacked Smuts on Feb. 2, and after many casualties withdrew.

We have intentionally presented a fuller skeleton than is usually necessary of the operations around the Magaliesberg, as it is desirable a mental picture should be formed of what guerilla war means for mounted troops. All the earlier movements up to Nooitgedacht fall within a small square of 20 x 50 miles, so that the question of long and exhausting marches does not enter into it, nor does that of food or water supply, for it is obvious that under the conditions narrated ample time for feeding and grazing could be found daily. Even in the wider operations of the columns, including the operations against Beyers and Smuts, all fall within a square of 50 x 80 miles. The fact is that entirely apart from the question of defective intelligence, the forces were neither sufficiently mobile, nor at present were they educated to guerilla warfare. All these had to be learned at the expense of horses out of condition; that the enemy was fully aware of the deficiency is shown by the boldness of their movements, especially that in which Beyers pushed his force between Pretoria and Johannesburg, and forced a way for it across a well defended section of the railway. To those actually possessing knowledge of all that was occurring at the time in the theatre of war, the sudden change in the tactics of the enemy must have been disconcerting.

We are now fairly launched into the difficult waters of the new campaign which was to prove so wasteful in horses.

#### OPERATIONS IN THE EASTERN TRANSVAAL.

##### ATTACK ON UTRECHT, WAKKERSTROOM, AND VRYHEID.

DECEMBER, 1900—JANUARY, 1901.

Botha left Pietersburg in November and proceeded to the south-east Transvaal, thrusting his force into the pocket of the Transvaal which lies between Natal and Zululand. Here he attacked Utrecht, Wakkerstroom and Vryheid, the latter before dawn

\* The distinguished career of this leader of men will be noticed in due course. He soon showed "and not for the first time that a shrewd, resourceful, energetic and determined civilian was, at least in guerilla, more than a match for highly trained British Officers."—*Handbook of the Boer War*. Anonymous.

on December 11. Vryheid, in spite of all the warnings it had received of an impending attack, was nearly lost. The camp was a peculiar one and well protected. The interest to this history lies in the Mounted Infantry Company, the lines of which were on an exposed plateau; on this place the full force of the storm was suddenly delivered. The fire stampeded the horses, which added enormously to the confusion, the enemy actually taking cover on the ground between the rows of saddles,\* to pour in a fire, the result of which was a foregone conclusion. The Mounted Infantry was demolished and all the horses lost, but Vryheid was saved by its defences. *Utrecht* was attacked on Dec. 25. Again, strange to say, the garrison had full warning of the attack; the horses were placed in a sheltered donga, and consequently escaped the sharp fighting which followed.

Botha now turned north to the Delagoa Railway line; General B. Viljoen had already attacked this, having, on Dec. 28, inflicted serious loss by capturing a large gun at Helvetia, a detached post on the Lydenburg road, close to Machadodorp. Botha's scheme for dealing with the line was more extensive; 40 miles of it were attacked simultaneously on the night of January 7, the most serious blow fell on Belfast, and occasioned heavy losses. At this time an Indian Field Veterinary Hospital was located at Belfast, and on its arrival there on November 15, it had been placed in a very exposed position. It contained at the date of the attack 350 cases, and was entirely without means of defence. The enemy missed it during the heavy fog which prevailed at the time,\* and next day two companies of infantry were detailed for its protection. The trouble did not end there. A little later some horses belonging to the 5th Lancers, which had been stampeded by the enemy in the night attack on the line at Wonderfontein, returned to their old camp at Belfast. The muffled peal rung by the feet of a stampeding mob, caused the Infantry Company to believe the enemy was exercising their new charging tactics, and they opened fire as the horses swung past the hospital, and in doing so fired into the second company hard by, with the result that two men were killed. After this event the hospital was placed in a less exposed position. Train wrecking and attacks on the Delagoa line now went on almost daily throughout the month, as many as three trains being wrecked in one day. At the same time large forces of the enemy were collecting in the neighbourhood of Ermelo and Bethel, and the Natal line to Pretoria was the scene of frequent interruption and loss of life, among the captured trains on that section being one containing 150 remounts. The events we have outlined in the Eastern and Western Transvaal, together with those now taking place

in the Orange Free State, yet to be recorded, marked a condition of extreme gravity, and determined the Commander-in-Chief to make his first big sweeping movement across the Eastern Transvaal, which will be described later. We now know that the scheme in the mind of the enemy during January was the simultaneous invasion of Cape Colony and Natal, by the forces marching on Cape Town and Durban respectively; it was for this movement towards Natal that the Commandos had collected in the Eastern Transvaal, and that Utrecht and Vryheid had been attacked.

#### CAPE COLONY.

##### THE INVASION OF KRITZINGER AND HERTZOG.

DECEMBER, 1900—FEBRUARY, 1901.

We have seen at p. 111 that though De Wet failed to cross the Orange River in December, his two colleagues Hertzog and Kritzinger, were not swept back by the columns which closed the river to their leader. Hertzog was a Judge in the Free State, Kritzinger a Commandant, neither had previously made his mark, and it might have been assumed that the turning back of the big man of the trio would render the movement abortive. Hertzog and Kritzinger thought otherwise, and carried out their part of the programme, the Judge taking the Western, the Commandant the Eastern portion of Cape Colony, into which they both plunged by crossing the Orange River on 15th and 16th December at points 80 miles apart.

It is an indication of the condition of Cape Colony that these two small parties of men, Hertzog with 1200, and Kritzinger with 700, should have boldly plunged into British Territory without transport, and with a full knowledge that the door to their retreat was closed behind them—they knew, however, what they were doing; they had entered a country as bitterly hostile to the British as the Free State or Transvaal. Wherever they went they found friends on whom they lived, and from whom they obtained that valuable information which enabled them to roam with almost absolute impunity, even in the neighbourhood of British columns. Every man had two horses, and for the purpose of supply they spread out, even over as great a distance as 20 miles, in search of food for man and horse. Hertzog, who went to the West, had the longest and most difficult ride, as well as the most inhospitable country to work through. Yet he actually reached a point within a hundred miles of Cape Town before it was possible, in spite of the line of rail, to interpose a force to drive him back. Kritzinger went South through the midland district until he nearly touched the sea. Neither force obtained many recruits at this time. The Dutch of Cape Colony maintained an attitude of passive opposition to the forces of the Crown, but they were not prepared to take up active operations so long as their battle could be fought for them. The part they played was to feed and shield the invader, and this

\* *Official History*, Vol. IV, p. 31.

† During the fog a Burgher strayed into the Hospital and was captured by an Indian Water-Carrier, who had been an old soldier.

it is essential to understand in explanation of the inability of the British columns to close with them.

The first important step taken on the invasion of Cape Colony was the proclamation of Martial Law in all districts of the disturbed area. The effect of this measure from a veterinary point of view was that it rendered available the immense animal resources of the district. These were the horses subsequently known as "protection stock" which have been referred to at pp. 132, 133. They included not only working horses but brood mares and foals. They were collected by magistrates and delivered to the Commandants of various military posts, who had no means of dealing with them. Thousands were so collected, and but few comparatively speaking, were utilized for military purposes, in fact, at the time we are speaking of (December) hardly any, as the understanding was that these animals should be placed under military protection, in order to deny them to the enemy until the Colony was freed from invasion.\*

To meet the above raiders, whose total strength was 1900, five columns were at once brought by rail and based on Naauwpoort, and three or four more were rapidly formed from troops brought down from the Transvaal or on the spot. Local forces were assembled for the protection of the railway, and Cape Colony woke up to find itself once more in the throes of war after months of inactivity.

The importance attached to the invasion of a vast sub-continent by two microscopic bands was out of all proportion to their strength. These two thousand men necessitated the arming of 10,000 loyal citizens for the protection of the towns and capital, exclusive of the mobile forces employed in chasing them. Never probably in the history of war have so few men been able by their mere presence, and in the absence of fighting or destruction of property to cause such a commotion. We shall endeavour to show what work the repelling of the invasion inflicted upon the horses, and for that purpose a general account of the measures adopted for dealing with it must be related.

Hertzog and Kritzinger were 80 miles apart on entering the colony; they rapidly diverged, though both travelled in a general S.W. direction. Kritzinger penetrated 280 miles and Hertzog 420 miles, as measured in a straight line, into the heart of the Colony, their terminal points being no less than 240 miles apart. Hertzog kept to that part of the country where generally there was no line of rail, Kritzinger confined himself, or perhaps was confined to the railway area. This has an important bearing on animal energy, as columns could be rapidly moved by rail in the one case, while in the other everything had to be carried out on the horses' limbs,

and food supplies for several days dragged on wheels. In both cases the country was difficult, Kritzinger purposely selected parts he knew would offer the greatest impediment to his pursuers, while Hertzog moved through districts which were either mountain or desert. Finally, in explanation of the abortive attempt to follow these two men, the ever recurring difficulty of transport must be remembered. The enemy travelled light and without impedimenta; we travelled loaded, and food, even for short distances, had always to be carried. Each invader must be separately dealt with.

There were no mobile troops in Cape Colony at the time of the invasion, but in less than a week sixteen mobile columns set out to chase these adventurous men. From the Free State, C. Knox, furnished the columns of Grenfell, Gorringer, and Herbert. These went to Hanover Road. From the same State came Parsons, Thorneycroft, Parke, Byng, Bethune, W. H. Williams, and De Lisle, this group of columns went to Naauwpoort. From the Transvaal came the 7th Dragoon Guards and Brabant's Horse; from Kimberley a body of Yeomanry, while three mobile columns were formed in Cape Colony itself under Shute, Crabbe, and Henniker. This represents a total of 5300 horses. The columns were under the command of General Settle.

Hertzog was first heard of at Philipstown on 19th December, and crossing the railway twenty miles north of the immense depot at De Aar he arrived at Britstown on 22nd, having on the way captured four companies of Yeomanry. From De Aar the columns of De Lisle, Thorneycroft, and Parke, proceeded west to Britstown, and finding the enemy had gone N.W. in the direction of Prieska followed him, De Lisle for a time gaining contact at Houwater. The column of Parsons was sent south and detrained at Victoria West, while that of Bethune followed, as Hertzog had now swung south apparently making for Carnarvon. Parsons made forced marches to Carnarvon (70 miles from Victoria West station), Bethune taking his place at Victoria West, while De Lisle, Thorneycroft, and Parke still clung to the commandos, which on 30th December were within seven miles of Carnarvon. An attempt was now made to drive Hertzog into the arms of the pursuing columns, but it failed, though it caused him to go more to the west and consequently further from the line of rail. He was followed nearly as far as Williston by Thorneycroft and De Lisle, who had both then to return to the line for supplies. They had chased the enemy for over 200 miles, but only in the direction he desired to follow, and found themselves worn out over 100 miles from the railway, where alone they could obtain fresh supplies.

Hertzog headed for the Atlantic Ocean pointing on Lambert's Bay, 130 miles north of Cape Town. There by travelling between Clanwilliam and the sea he would have passed around the mountain ranges, and an easy road to Cape Town from the north lay

\* During January, 1901, the Remount Department secured in Cape Colony some 15,000 horses for the troops; supplies had previously been reported as non-existent. How many of these were "protection horses" is unknown.

open. He knew well that to attempt Cape Town through the impenetrable mountain ranges covering the capital on the east could only lead to disaster.

The next set of British operations were therefore designed to cut off this north road to Cape Town. For this purpose even a part of the Fleet was requisitioned and took up a position in Lambert's Bay, while troops to garrison Clanwilliam were sent by sea to hold this important point. Even ships and railways were hardly quick enough for this high-velocity commando. Henneker, by a forced march of 90 miles, secured the passes of the Roggeveld Mountains, which otherwise would have given almost direct access to Cape Town; De Lisle was brought by train from Beaufort West to Piquetberg, and from thence he marched to Clanwilliam (85 miles) and joined the troops brought by sea from Cape Town. Bethune, who had been sent to Sutherland, was brought into the line and marched from Tows River to Clanwilliam (100 miles). Thorneycroft marched from Fraserburg to Sutherland (60 miles). These movements blocked Hertzog's progress on the Doorn River when only 50 miles from the sea. It was the 21st January, so that for over a month the troops had been chasing their elusive enemy. Preparations were now made to drive him back. De Lisle, Bethune, and a fresh force under Colenbrander advanced from Clanwilliam across the Doorn River on 30th January, and Hertzog rapidly retired through Williston and Carnarvon; he continued his retreat north-west and reappeared on 21st February at Houwater, N.W. of De Aar, 300 miles from the point he started from on the Doorn River. It was his intention to join De Wet, who at this time was vainly endeavouring to penetrate Cape Colony. The column which had followed Hertzog from Doorn River arrived at Carnarvon on 16th February having covered 200 miles with transport over a country in part almost impassable. Even in a straight line the average distance covered was nearly 13 miles a day, but more than this was actually done, though not sufficient to overtake a force with spare horses for every man and no transport. The best march of the pursuing force was that made by De Lisle between Calvinia and Williston, where he covered 72 miles in 48 hours. Conan Doyle \* speaks of it as "one of the most amazing performances of the war."

We must leave Hertzog at Houwater feeling for De Wet, while the chase of Kritzingers is followed. On 19th December touch was made with him at Venterstad, where he was slowly making south for the Zuurberg mountains, a range running east and west, a short distance south of the Orange River. This was a favourite haunt of commandos for many months to come. On 26th, followed by Grenfell, Gorringer, Herbert, Lowe, W. H. Williams, Byng, and Shute, he turned east for Stormberg, but being pressed, doubled north-west, and after further

wanderings went south-west, and on 30th December attacked the line at Bangor, between Rosmead and Naauwpoort, where he captured a train and some troops. Colonel Haig, C.S.O. to General French, was now given the command of the four columns of Byng, Grenfell, Williams, and Lowe, and directed to prevent Kritzingers penetrating south. Lowe and Grenfell were therefore sent by train to the town of Graaff Reinet, 60 miles away, in order to get in front of him, and Haig endeavoured with all his columns to enclose him. On 6th January Kritzingers, who had not gone far, broke away west and divided his force, one part moving on Richmond under Scheepers, while the other remained with him and headed for Murraysburg. It will be observed from the map that he was moving between the Cape Town-De Aar and Graaff Reinet-Rosmead lines of rail, which though 90 miles apart run almost parallel for 150 miles. The division of his force—a manœuvre everywhere practised by the enemy when pressed—always necessitated his opponent doing the same. Scheepers and Kritzingers re-united a few miles west of Murraysburg on 13th January, and again divided and both moved south, the one pointing on Willowmore, the other on Aberdeen. Since crossing the line at Bangor on 30th December he had barely travelled 100 miles up to 13th January. These deliberate movements show extraordinary confidence in the security of his position, but gave no relief to the columns, which had to prod here and there in an endeavour to obtain information, and travel considerable distances in order to forestall a possible movement of the enemy. In this southerly move Haig endeavoured once more to get ahead by sending Lowe round by rail † to Prince Albert's Road, and so get astride of the path of the commandos, but by now Kritzingers was moving quickly. On 18th January Haig was at Willowmore, only 50 miles from the sea, and the enemy was still in front of him. A depot had been established on the coast. It was undefended, for no one in their wildest moments in December, 1900, would have ever considered it possible for the enemy to reach the South Coast. Once more the Navy shared in repelling the extraordinary invasion of a handful of determined men, who by now had created a feeling of consternation in the quiet sleepy districts of the south, so far removed from the seat of war. Kritzingers and Scheepers spread out after leaving Willowmore, Scheepers towards Uniondale, Kritzingers to Oudtshoorn. Haig was now able to come into contact, and on 21st Scheepers was surprised by Williams at Uniondale ‡ while he and his commando were breakfasting at an inn, but they escaped. Haig's columns had been so placed in the surrounding country that Kritzingers was hemmed in among the mountains which run between Oudtshoorn and Uniondale. Gorringer

† The railway enclosed three sides of the big square within which these operations were occurring.

‡ Only 25 miles from the sea.

\* "The Great Boer War," 1902.



meanwhile had come up with 500 men of a new force known as the Colonial Defence, and with this addition the probability of capturing Kritzingen was increased. After two attempts he fought his way out, chased by a new force under Gogarty (600 horses), which had come from Willowmore. Kritzingen now made for the mountains to the S.W. of Willowmore, known as the Baviaans Kloof, where further pursuit was impossible. Scheepers had also been in difficulties, the passages through the mountains to the north were denied him, but he surprised and captured a party of Yeomanry who were on their way to hold the only possible unoccupied outlet, and so escaped north-west towards Beaufort West. Hunted by road and raced by other columns placed on the line of rail, Kritzingen and Scheepers, though travelling separately, both inclined to the N.W., and were forced under pressure of numbers to twist and turn, though ever working north, until the pressure suddenly ceased in the middle of February by the withdrawal of the pursuing columns which were required for the more important purpose of closing in on De Wet.

Thus for nearly two months without a rest had the forces under these two leaders drawn some eighteen British columns up and down the depths of Cape Colony, wearing out horses and effecting nothing useful.

During the raid of Hertzog and Kritzingen, both leaders had been able to communicate with De Wet, then in the heart of the Free State (p. 111), an astonishing fact considering how closely every channel was guarded, but a tribute to the excellence of their Intelligence Department. These reports caused De Wet to assemble his commandos for another descent on Cape Colony, and for this purpose they rendezvoused at the Doornberg on 25th January.

#### DE WET'S INVASION OF CAPE COLONY.

JANUARY, 1901.

The assembly at the Doornberg was not unknown to the British, and two forces under B. Hamilton and C. Knox, consisting of five columns of 3000 mounted troops, were concentrated in its vicinity. These he eluded and marched south, one of the forces being railed on to cut him off, the other following in his wake. The latter was under Knox, who, coming up, a fight ensued in which the casualties were relatively heavy. De Wet continued south on his journey and broke through the defences on the Thabanchu-Ladybrand line where Hamilton had hoped to forestall him. Continuing his journey south, he made for the Orange River, Knox and Hamilton being railed there to anticipate his passage. The columns of Plumer and Paget were brought down from the Transvaal. The Orange River was lined by all the troops which could be scraped together from the various towns and ports. A new column was formed under Bethune at Naauwpoort consisting of two cavalry regi-

ments just off board-ship,\* together with a regiment of Light Horse recently raised at Cape Town. Hickman was given 1000 recently landed M.I. from home, and troops were brought down from Kimberley. Twelve columns in all were assembled before De Wet could arrive at the Orange River, disposed to the best advantage to prevent his passage.

The drain on the horse supply involving the sudden mounting of the newly arrived M.I., the repair of waste in the columns following Hertzog and Kritzingen, that occurring in the wake of De Wet, and the remounting of the recently created local troops, produced a strain such as had never been previously experienced in such a short period.

The man sitting at home wondered why horses were not rested on arrival before being sent to the front; others considered, and very naturally, that a temporary suspension of hostilities might meet the case by giving time for the horses to condition for work. Both of these were at times possible, but not at such a period as that under consideration. It will be observed that in all the work of the previous two months it was the activity of the enemy which had to be met; the British were no longer attacking but on the defensive. The recrudescence in the Free State followed by that in the Transvaal, occurred simultaneously at points east and west as far apart as the Magaliesberg and Zululand, and now as far south as the Orange River, and almost to Cape Town. The condition of affairs in Cape Colony resembled that of sixteen months earlier, with the exception that a force existed which could only be made mobile by using wholly unfit horses.

The operations about to occur against De Wet in Cape Colony were confined within an irregular rectangle, the longest sides of which were from 150 to 170 miles in length, and the shortest from 40 to 80 miles. Half of this area was enclosed on three sides by the railway, while the Orange River formed the fourth side. Theoretically, in spite of many drawbacks, the position was a favourable one for the defender. The object was to prevent De Wet from crossing the Orange River, or if he succeeded in this to beat him back and so prevent him from joining his 2000 men to the forces of Kritzingen or Hertzog.

De Wet came south through the Free State very leisurely, and having spread rumours of his intention to cross the river in the eastern reaches, turned west, crossed the line close to Springfontein and captured a train while effecting his passage. There was still the mobile columns of B. Hamilton and C. Knox on the north bank, and these gave chase now that his position was known, and having covered seventy miles of forced marching found that De Wet had crossed the Orange River at Sand Drift on 10th February, two days previously. The passage of the river was now denied to the pursuing forces, for it suddenly came

\* They had not been ten days in the country.



down in flood, and it was not until the 14th that it could be crossed.

In the meanwhile Plumer, with his fine force of 1700 mounted men, nearly all Australians and New Zealanders, with two squadrons of the newly arrived King's Dragoon Guards, one squadron of I.Y., and the usual guns, shot out from Colesberg and came in contact with De Wet on the 12th. This day and the next was one constant chase and rearguard action amid drenching rain. On the 13th two hundred horses belonging to the enemy were found abandoned owing to exhaustion. On 14th De Wet's animals needed a rest, but Plumer attacked, and the regiment fresh from home soon experienced what it was to meet veteran forces by having a party captured. The colonial troops suffered in a dashing attack, and soon De Wet was on the move, his flank having been turned. Transport was left behind, and Plumer in hot haste pressed him unremittingly for 34 miles, when a terrific storm burst and the pursuit had to be suspended. Another storm a few hours later converted the veldt into a morass, in which guns, horses, and transport could no longer move, and men stood knee-deep in mud and water. The same night De Wet crossed the railway which runs from Kimberley to De Aar; the storm compelled him to leave behind his baggage and supplies, and a swamp into which he fell soon after crossing completed the confusion. By this time a small column under Crabbe had arrived on the scene, together with an armoured train. The small column followed in observation, and held on until Plumer struggled up out of the mud, his men being encouraged to extra efforts by seeing the enemy's supply train left behind. De Wet now went north-west, making for Prieska, followed by Plumer, who, on 17th, at a point 25 miles due west of Orange River Station, was compelled to halt. "He was absolutely destitute of supplies; neither man nor horse had fed that day, the latter were almost immovable from fatigue. He had run himself to a standstill at the very brush of the exhausted quarry." • On the 18th Plumer followed the track of De Wet by his abandoned horses, and came in sight of him in the late afternoon, but as De Wet remounted himself at every farm, he had no difficulty in keeping ahead of Plumer. Behind, and to the left of the latter, was C. Knox, whose knowledge of De Wet's movements was peculiar and intimate. He divined that De Wet would make for Prieska by crossing the Brak River, and accordingly he anticipated him. The Brak was in flood and unknown to Plumer, who was now at a standstill, Knox was now on the river close to where De Wet was searching for a crossing through the raging flood.

Hearing of the proximity of Knox, De Wet doubled back N.E., hugging the Orange River in the hope of finding a crossing, and closely followed by a small party of Q.I. Bushmen, who, like their

enemy lived on the country, travelled light and maintained touch with the commandos. All this time De Wet was confined in a loop of the Orange River, some 60 or 70 miles across. Some of his men found a boat and pushed across, darkness prevented the others from following, and by early morning Plumer was once more on them and shook them severely. It was on this day, 22nd Feb., that a determined effort was made to capture De Wet's guns, which were heard to be in difficulties owing to the exhausted state of their animals. The freshest horses of the King's Dragoon Guards, V.I. Bushmen and I.L. Horse formed a small party which, after a three hours' chase which ruined most of their horses, captured the guns. These animals covered 44 miles this day. De Wet was now heading for Hopetown; he was returning home, and going S.E. slipped past a column sent to observe him, and crossed the Kimberley Railway a few miles south of Orange River Station. It will be observed that no junction had yet been made with Hertzog, but the latter was near at hand, and was run into by B. Hamilton on the 21st, who gave chase. Hertzog then crossed the line some miles north of De Aar. The Column commanded by Thorneycroft had now reached the line in this vicinity, and on 24th detrained just south of where De Wet crossed. He pressed on in his trail, which was still along the bank of the Orange River, for De Wet was probing here and there for a drift which would admit of being negotiated, but the river was still in flood. Advancing on De Wet's right flank from Philipstown was Hickman's Mounted Infantry Column; pressing towards him from Colesberg was another column, while to the latter place the untiring Plumer was being railed round from Hope-town.

On the banks of the Orange River, on 27th February, De Wet's and Hertzog's worn-out Commandos united, and were now engaged in the desperate attempt to escape from the network of columns converging on the drifts across the Orange River. It was known that De Wet was making for a drift near Colesberg Bridge, the fifteenth to be sounded, and Byng's Column made a 45-mile march on Colesberg to forestall him.

But everything was too late, Byng's force came in contact but was brushed aside, being very weak, and Botha's drift, close to the blown-up Colesberg Bridge, afforded De Wet's and Hertzog's sorely-tried Commandos access once more to their own country. If ever brave and daring men deserved success these did. Once in their own territory the Commandos began to undergo solution, they were dispersed right and left, though followed up again by Plumer (now railed to Springfontein) who made for Philipolis which he reached on 3rd March. De Wet had left it the previous day. Plumer followed, and from the 3rd to the 11th March chased the ever-lightening Commandos with his indefatigable Colonials. Northward he passed through Fauresmith, Abraham's Kraal and so on to north of Brandfort. Here De Wet crossed the

• "Official History," Vol. iv., p. 82.

railway, and together with Steyn, who had been with him the whole time, reached Senekal on 11th March. Plumer on the 11th realised that the chase was at an end and turned in to Brandfort.

We have given the itinerary with some little detail, as it is absolutely necessary in judging of the waste of horses that some knowledge should exist of what they were called upon to perform, and the conditions under which it had to be carried out. The time occupied by De Wet in this raid was 43 days, and the distance he covered was 800 miles. If we select Plumer's Column, the distance covered from Colesberg on 11th Feb. to Hopetown on the 25th was 260 miles, and from Springfontein on 3rd March to Brandfort on the 11th was 200 miles.

The following are the marches performed by this indomitable Column, which, of all others, remained longest in contact with De Wet.\*

11 Feb.	27 miles	marched.
12	24	„ in action 5 animals killed, 7 wounded.
13	36	„ „ 5 wounded. Heavy continuous rain. Animals much exhausted.
14	20	„ „ 4 killed, 20 captured. Many shoes lost.
15	18	„ left transport behind and pursued.
16	26	„ horses only receiving 3 lb. oats. Many cracked heels from watering at dams.
17	18	„ no rations or forage.
18	25	„ 2 lb. oats for horses.
19	6	„ 1½ lb. „ Animals completely exhausted, had to halt.
20	11	„ no rations or forage.
21	12	„ „
22	18	„ small quantity of forage obtained. Horses suffering from diarrhoea caused by eating karoo bush.
23	10	„ captured enemy's guns.
24	10	„
25	Halt	Farriers busy shoeing up, very few sore backs.
26	9	„
27		By train to Springfontein.
3 Mar.	27 miles	from Springfontein to Phillipolis.
4	24	„ in action.
5	36	„
6	30	„
7	20	„ in action, 8 killed, 5 wounded.
8	Halt	
9	21 miles	20 horses died from vegetable poisoning, only two recovered.
10	21	„
11	11	„ reached Brandfort, chase ended.
Strength before operations, 920 horses and 450 mules.		
Casualties, 230 horses.		

Information is available of the loss in Pilcher's Column of Knox's Force. It arrived at the Orange River on the 12th Feb., and so difficult was the crossing that it occupied 1½ days. Some of the marches are interesting, and object-lessons:

14 Feb.	25 miles.	20 Feb. arrived at Brak River.
15	34	„ 22 25 miles.
16	15	„ 23 } 42 „
17	30	„ 24
18	35	„ 25 arrived at Hopetown.
19	35	„

\* I am indebted for these notes to Major W. D. Smith, the veterinary officer, who, together with Captain Glasse (then C.V.S.) and Lieuts. McLeod, Q.M.I., and Fletcher, V.M.I., were present throughout these operations.

On the 24th the loss of horses had been so great that one third of the men were walking, and on arriving at Hopetown, out of a strength of 1,200 with the column, 500 horses were lost and as many men walking. "The horses were in a pitiable condition. There was no grass to be had, and they had been doing these long marches on 2 lb. to 3 lb. of oats per diem . . . We passed hundreds and hundreds of used-up animals, standing just where they had been abandoned."\*

The hardships and exposure during the terrible tropical rains in mid-summer can never be appreciated but by those who had to face them day and night without cover of any kind, and frequently without food. And what applies to men applies with four-fold intensity to horses.

The expenditure in repelling De Wet's invasion exceeded 5000 horses.† This includes the wastage in the sixteen columns following Hertzog and Kritzing. Twenty-seven columns of mounted troops containing a total of 10,800 horses, were occupied in Cape Colony during the period we have been relating and the above loss may be taken at 25% per month. This is the price paid for working unfit and underfed animals.

### TRANSVAAL.

#### OPERATIONS EASTERN TRANSVAAL, JANUARY-APRIL, 1901.

##### FRENCH'S "DRIVE," PRETORIA TO SWAZILAND.

During the whole time the events in the preceding section were occurring, others of a different character and on a still larger scale were taking place in the Eastern Transvaal. This abode of some of the best fighting commandos had not hitherto been seriously dealt with; it lay in the large angle formed between the Natal line to Johannesburg and the Delagoa line to Pretoria, and the only part of this immense country, 220 miles is its greatest length and 160 miles at its widest part, in which it was safe to move was within the outpost on the line of rail. Kitchener determined to sweep it from west to east with columns so arranged that no portion should escape visitation. Crops were to be destroyed, the people and their stock brought in. It was hoped that the enemy, if not enveloped in the high veldt, would have to fight with their back to Zulu or Swaziland. The sweeping operations, the first of their kind, were under General French, who had seven columns given him for the purpose,‡ consisting of 14,000 fighting men, 11,500 horses, and 9000 mules.

\* "Scottish Yeomanry in South Africa: Glasgow and Ayrshire Co." By Trooper Orr, 18 Co. I.Y.

† Cd. 963, Cable 79. 30th March, 1901, to the Secretary of State.

‡ Dartnell, Allenby, Pulteney, E. C. Knox, Alderson, Campbell, and Smith-Dorrien. Only a few names of the veterinary officers accompanying these are known, so that no list is attempted.

or two occasions the official in charge was warned as to lime-washing horse-boxes, etc.

*Parasitic Mange Order, 1911.*—Parasitic mange still exists in London, but there has been a considerable reduction in the number of cases observed during the year 1912 when compared with the figures for 1911. They are as follows:—

	1912.	1911.
At repositories	39	59
At Custom House Quay	27	40
At work on the streets	49	140
Reported by veterinary surgeons	1	2
„ City Police	2	4
Totals	118	245

*Exportation of Horses*—10,455 horses were presented for examination at Custom House Quay and 460 at Fresh Wharf; of those the Veterinary Inspector for the Board of Agriculture rejected 257 at the former wharf and 8 at the latter. Compared with the year 1911, there is shown an increase of 1,573 in the number examined, and a decrease of 15 in the number rejected, while under the Diseases of Animals Acts the figures show as follows:—

	1912.	1911.
Glanders	—	3
Parasitic Mange	27	40
Totals	27	43

*Importation of Horses.*—205 horses were imported into the City during the year; they were carefully examined on arrival and found free from disease. Compared with the year 1911, there is shown a decrease of 172 in the number imported.

#### HORSES (IMPORTATION AND TRANSIT) ORDER OF 1912

This Order was issued during the year; it is divided into two chapters. The second chapter came into operation on the 1st day of July, 1912.

The first chapter was intended to come into operation on the first day of January, 1913, but this date has been altered to the 1st day of July, 1913. It is as follows:

##### CHAPTER 1.—IMPORTATION.

1. This chapter shall come into operation on the First day of January, (July) Nineteen hundred and thirteen.

2. (1) A horse, ass or mule brought to Great Britain from any other country except Ireland, the Channel Islands or the Isle of Man, shall not be landed in Great Britain otherwise than:—

- (a) under the authority of a licence granted by the Board, and subject to any conditions imposed by the licence; or
- (b) under and in accordance with conditions imposed by Article 4 of this Order.

(2) A licence shall not be available as an authority for the landing of a horse, ass or mule unless the animal is accompanied by a certificate of a veterinary surgeon to the effect that he examined the animal immediately before it was embarked, or while it was on board the vessel, as the case may be, and that he found that the animal did not show symptoms of disease.

3. Where the Board grant a licence authorising the landing of a horse, ass or mule, the Board may impose and insert in the licence such conditions as they may think necessary.

- (a) for prescribing and regulating the detention and isolation of the animal;
- (b) for prescribing and regulating the veterinary examination of the animal (including the application of the mallein test) and the person by whom the examination is made;

(c) for regulating the movement of the animal from the place of landing to the prescribed place of detention; and

(d) generally for the better execution of this Chapter or the preventing of the spreading of the disease by the animal.

4. Where the landing of a horse, ass or mule is not authorised by a licence granted by the Board, its landing shall be subject to the following conditions, namely:—

(a) the landing must be authorised in writing by an Officer of Customs and Excise, and be at a port which has been authorised by Order of the Board as a port for landing imported horses, asses or mules.

(b) the animals shall on landing at any such port be moved by the owner or person in charge thereof direct to a place of detention provided by the Local Authority for horses, asses and mules imported at such port, or to a place of detention otherwise provided and approved for such purpose by the Local Authority;

(c) the animal shall be detained at the place of detention by the owner or person in charge thereof until it is released by a permit granted by an Inspector of the Local Authority;

(d) the permit shall not be granted until the animal has been examined by a Veterinary Inspector of a Local Authority and found by him to be free from symptoms of disease;

(e) in every case, except where the animal shows clinical symptoms which are definite evidence of Glanders, the animal shall be tested by a Veterinary Inspector of the Local Authority with mallein, which may be applied at such time not later than ten days after the arrival of the animal at the place of detention as the Veterinary Inspector may think fit;

(f) where in the opinion of the Veterinary Inspector the original application of the test results in indications of Glanders not amounting to definite evidence of Glanders, the test shall be applied a second time, not later than twelve days after previous application; and if the second application does not result in definite evidence of Glanders, the animal shall for the purposes of this Order be treated as free from symptoms of Glanders.

5. The Local Authority or the person by whom the place of detention is provided shall cause the part of the place of detention used by a horse, ass or mule to be thoroughly cleansed and disinfected in such manner as the Local Authority think fit before it is again used for the reception of a horse, ass or mule.

6. The Local Authority may under Section 32 of the Act of 1894 charge for the use of a place of detention provided by the Local Authority such sums as may be imposed by bye-law.

7. Any horse, ass or mule in a place of detention which is affected with or suspected of disease, and which is not required to be slaughtered under the Order (if any) dealing with the particular disease, may be removed with the written permission of an Inspector of the Local Authority to a vessel in the port for exportation.

8. If it appears to the Principal Officer of Customs and Excise, with respect to any foreign horse, ass or mule, or with respect to any carcass of a foreign horse, ass or mule, that disease may thereby be introduced, he may seize and detain the same; and he shall forthwith report the facts to the Commissioners of Customs and Excise who may give such directions as they think fit, either for the slaughter or destruction or the further detention thereof or for the delivery thereof to the owner on such conditions, if any (including payment by the

owner of expenses incurred by them in respect of detention thereof), as they think fit.

9. In this Chapter the expression "disease" means glanders (including farcy), epizootic lymphangitis, dourine, horse pox, sarcoptic mange, psoroptic mange, influenza, ringworm, or strangles, and the expression "Local Authority" means the Local Authority of the port of landing for the purpose of the provisions of the Act of 1894 relating to foreign animals.

10. Any Order of the Board which deals with any of the above-mentioned diseases shall, in relation to a horse, ass or mule detained under this Chapter, be modified by the terms of this Chapter.

The effect of this order will be to cause a very considerable amount of extra duties and responsibility on the Officers of the Local Authority, and may necessitate additional assistance. Suitable premises will require to be fitted up in order to deal with a number of horses estimated at about 2,000 annually.

*Foreign Animals Order.* Twelve Notices were received from the Board of Agriculture, re the entry into the Port of London (City and County of London portions) of ships having on board foreign animals. Those consisted of: 10 pigs, 4 sheep, 4 goats.

In one case a summons was applied for and granted re a contravention of the Order, but as the ship had left this country the case has been adjourned *sine die*. The ships lying in various docks were regularly visited during the time they were in port, in order to ensure that the regulations of the Board of Agriculture were carefully carried out.—Your obedient Servant,

T. DUNLOP YOUNG.

The Veterinary Inspector's Office,  
Central Markets, Smithfield, E.C.

#### Expenses in Veterinary Slander Action.

In the Court of Session on May 29th, five judges heard counsel in an application for application of the verdict in the action at the instance of Principal Bradley of the Royal (Dick) Veterinary College, Edinburgh, against Messrs. Menley & James, Limited, Farringdon Road, London, for £500 damages in respect of alleged slander. [A report of the action appeared at p. 643, April 12th]. The defenders, who denied slander, tendered the sum of £5. In March last a jury under the Lord President returned a verdict for the pursuer, and assessed the damages at 6d. The judges last week found the defenders entitled to expenses since the date of the tender, and refused their motion for the whole expenses of the action.

The Lord President said the point raised was one more of novelty than of difficulty. The jury had affirmed the pursuer's propositions concerning the publication of the statements complained of, but had considered that the pursuer was done no real damage by them. Accordingly they assessed the damages at 6d. A tender of £5 was put in at some period immediately after the lodging of the defences, and the tender being for a larger sum than the 6d. recovered, the defenders would be entitled to all expenses after the date of the tender. But in the application of the verdict the defenders moved also for their expenses prior to the tender on the ground that the action ought never to have been raised. The pursuer did not move for those expenses, for the very good reason that when in a Court of Session action the pursuer recovered less than £5 he was not entitled to expenses unless on the certification of the Judge. No certificate was asked in this case, and his Lordship might say that he would not have granted it, because he was clearly of opinion that the action had better never been raised, and that it was persisted in when it had much better been given up. If they granted the defenders' motion he thought they would be going

against the verdict of the jury, who had affirmed propositions which put the defenders not only technically, but, in one sense, really in the wrong. Up to a point the verdict showed that in one sense the pursuer was right. The other Judges concurred. The pursuer was found entitled to three guineas as modified expenses of the discussion.—N. B. A.

#### Preliminary Examinations.

Sir Henry Morris, F.R.C.S., in an article on "The General Medical Council and the proposed alteration in the standard of preliminary examinations," says:—

"What is of greater importance than any question as to the 'how' and 'when' of raising the standard of existing examinations, is the urgent need of the several universities and examining bodies in the United Kingdom uniting to foster the establishment of a recognized school-leaving certificate; of a certificate which, without indicating a uniformity in kind of the education received, and without pretending to imply an exact identity of standard, will yet be a sufficient proof of a sound general education to admit the holders of it to any university or to the curriculum of study for any professional or scientific calling.

The entrance to a university or to a profession ought not to be barred by (in the words of Huxley) 'any absolute and defined preliminary examination, the passing of which shall be an essential condition of admission to the University.' The instruction of a university, or that required for any professional career, ought to be accessible to every one who is fit to take advantage of it, although he may not have been prepared at school to pass a particular 'absolute and defined preliminary examination.'

It is the want of a universally recognized and accepted school-leaving certificate which handicaps students, and is so embarrassing to school masters. It is this want which has been and is the chief obstacle in the way of many an excellent and accomplished student taking a university degree which otherwise he was fully competent to do; or changing from a profession for which he finds himself unfitted, or to which he has taken a dislike, into one for which he has developed a liking and realises an aptitude. It is the difference between the educational course they have pursued and the character of the particular entrance examination which they too late discover they have to pass, and not because their education and grounding are deficient or inferior, that under present circumstances keep the door shut against many students who are even more capable and better instructed than some of those who have been allowed to pass through the portal."—*Brit. Med. Jnl.*

#### Prof. Dewar on Foot-and-Mouth Disease Restrictions.

The report by Prof. Dewar, veterinary inspector, as to work under the Diseases of Animals Act in 1912 was submitted to a meeting of the Magistrates of Edinburgh. Prof. Dewar said that, fortunately, they had had no outbreak of foot-and-mouth disease in Scotland, but they had suffered severely from its presence in the other sections of the United Kingdom. Prolonged restrictions affected their market very adversely, as well as having a very prejudicial effect on the country generally. With his long experience of foot-and-mouth disease, the inspector continued, he had no hesitation in saying that these restrictions caused a greater loss to the country than a severe outbreak of the disease itself would have done. The report stated that there had been four outbreaks of swine fever, and for the first time for many long years not a single case of anthrax had come under his notice in the city. There were two outbreaks of glanders and farcy, and the Local Authority paid as

compensation £38 10s. Notwithstanding the large number of sheep passing through the market not a case of sheep scab was reported. There were 16 outbreaks of parasitic mange. The great majority of the cases were reported in the first half of the year, and it was not likely that there would be so many again, as horse owners now knew that the disease was being looked for.

#### Appointment of a Veterinary Inspector.

Prof. Gerald R. Leighton, M.D., C.M., L.R.C.P. and S.E., L.F.P.S.G., F.R.S., Edinburgh, has been appointed to the post of Veterinary Inspector to the Local Government Board for Scotland. This addition to the staff of the Board has been made to enable them to undertake considerable and important duties in connection with the supervision of meat inspection, and the inspection of dairies. Prof. Leighton's qualifications and experience are such as eminently suit him for the position to which he has been appointed. He studied medicine at the Edinburgh University, where he graduated M.B., C.M., in 1895. When engaged in private practice in Herefordshire he was attracted to the study of the pathology and bacteriology of the diseases of animals, and when he returned to Edinburgh he was appointed Lecturer in Comparative Pathology and Bacteriology at the Royal (Dick) Veterinary College. This position he held for seven years, until it was endowed as a Chair of Pathology, Bacteriology, and Meat Inspection, when it was thrown open to competition, and he was unanimously appointed. He has devoted considerable time to the study of the methods of meat inspection, and the working of milk supplies in England and in Continental countries, and the results of his wide and varied experience are incorporated in his text-book, "The Meat Industry and Meat Inspection" published in 1910.

[We think that there must be some mistake here. Prof. Leighton is not a veterinary surgeon].

#### REVIEW.

DIE BEKÄMPFUNG DER TUBERCULOSE DES RINDES, MIT BESONDERER BERÜCKSICHTIGUNG DER KLINISCHEN UND BACTERIOLOGISCHEN FESTSTELLUNG. (The combating of bovine tuberculosis, with special regard to its clinical and bacteriological diagnosis). By ROBERT VON OSTERTAG, Dr. Med. et Dr. Med. Vet. h. c. Geh. Regierungsrat und Direktor der Veterinärabteilung des Kaiserlichen Gesundheitsamtes. Mit 88 Abbildungen (with 88 illustrations). Pp. xij. + 591. Price paper 16 marks, bound 17 marks, 50 pfennig. (Published by Richard Schoetz. Wilhelmstrasse 10. Berlin)

For many years past Dr. Ostertag has been recognised as one of the world's greatest authorities in connection with bovine tuberculosis, and this book is worthy of his reputation. Were it written in the English language, it would demand a very lengthy and exhaustive review from us. As comparatively few English veterinary surgeons read German with facility, a short notice must suffice, but that may well commence with the statement that no more valuable work upon the subject has ever been published.

All veterinary surgeons know that Dr. Ostertag is the author of "Ostertag's system" of combating bovine tuberculosis. That system may be summarised as aiming at the discovery and slaughter of cattle having open tuberculous lesions, together with "tuberculosis-free" rearing of calves. This is distinctly different from Bang's system, which consists in the strict separation of all cattle reacting to tuberculin from non-reactors, with the same addition of rearing the calves free from tubercular infection. The great drawback to Bang's system is the difficulty of securing complete separation

of tuberculous from non-tuberculous animals upon an ordinary farm, and Ostertag's method avoids this. On the other hand, Ostertag's plan presents special difficulties as regards the diagnosis of open lesions. It is in the exposition of those difficulties and the means of surmounting them that the great value of the present work consists, though that is by no means its only merit.

The book covers every department of the subject—the importance of tuberculosis, the possibility of restricting or suppressing it, the part which open tuberculosis plays in the dissemination of the disease, and the clinical and bacteriological methods of diagnosing the last-named condition. The most valuable portion for English readers is the very considerable section allotted to the diagnosis of open tuberculosis, and this is especially important just now. Our own recent Tuberculosis Order is really the mild beginning of an anti-tuberculosis campaign upon something approaching to Ostertag's lines. But Continental veterinarians have carried the practical diagnosis of open tuberculosis much further than has hitherto been customary in England, and this work, which treats all the clinical and bacteriological methods of diagnosing open lesion in full detail, will be almost invaluable to English readers who can decipher the language in which it is written.

The book also contains a full account of the German regulations against tuberculosis, which will be useful for comparison. It concludes with a very copious bibliography, which embraces about 3,000 works upon tuberculosis. Upon the whole, we know of no book on the subject so valuable from the point of view of the veterinary inspector. It will far more than repay its cost to all who have to deal with tuberculosis.

W. R. C.

#### PARLIAMENTARY.

In the House of Commons, on Friday, June 6.

DOGS (PROTECTION) BILL.

This Bill was read a second time.

#### THANKS TO ELECTORS.

*To the Fellows and Members of the  
Royal College of Veterinary Surgeons.*

Gentlemen,

Permit me through the medium of *The Veterinary Record* to express my grateful thanks for the handsome manner which you supported me in the recent election, in return for which I can only promise to do my duty, and trust I may continue to merit the confidence reposed in me.—I remain, gentlemen, Yours very faithfully,

JOSEPH H. CARTER.

*To the Fellows and Members of the  
Royal College of Veterinary Surgeons.*

Gentlemen,

May I tender once again my sincere thanks to all those who have accorded me their votes and support at the recent election?

I need hardly say I shall always endeavour to merit the confidence reposed in me, and beg to remain, faithfully yours,

JOHN MCKINNA.

18 Ramsden St., Huddersfield.

## Personal.

We regret to report an unfortunate accident to Mr. T. Salusbury Price, M.R.C.V.S., which occurred on Sunday last. He was driving along the Camberwell New Road to visit some of his cases when his horse unaccountably fell, and Mr. Price was thrown out and sustained a comminuted fracture of the upper end of the left radius and ulna. He was bruised and shaken and is confined to his bed. Mr. Price was one of the successful candidates at the recent election to the Council of the Royal College of Veterinary Surgeons.

Mr. JOHN PANTON, M.R.C.V.S., was honoured by a large gathering of friends in the Atholl Arms Hotel on Saturday, May 31st, on the occasion of his having completed fifty years of practice in Blair Atholl district. Mr. D. D. Macdonald, who presided, called upon the Marquis of Tullibardine, M.P., to present to Mr. Panton a gold watch and silver tea and coffee service, with kettle and tray to match.

His Lordship said they all cherished feelings of deep respect and affection for Mr. Panton, and they owed him a debt of gratitude for the work he had done in the district professionally. Speaking as a cavalry officer, Lord Tullibardine said he did not know a more up-to-date veterinary surgeon than their friend Mr. Panton. Mr. Panton always tried to keep pace with the times, and he was gifted with a keen power of observation and love of animals, and was withal a man of sound common sense. In other respects Mr. Panton was a general favourite, and especially as a sportsman. In conclusion, the Marquis, in the name of the subscribers, expressed the hope that Mr. and Mrs. Panton might be long spared to go out and in among them.

Mr. Panton feelingly replied. He said when he came to Blair Atholl just fifty years ago there were no trains, no telegraphs, no motors, and no aeroplanes, but he hoped during the time of the coming camp they might have the good fortune to see one of the latter in mid-air. Mr. Panton thanked all the subscribers for their valuable and lovely gifts.

Mrs. Panton was presented with a silver mounted walking stick.—N. B. A.

## THE FINANCES OF THE R.C.V.S.

Sir,

It is regrettable to find amongst the correspondents in this journal such puerile ignorance as is observed in "Half-a-guinea's" letter last week. He says: "I do not think that the opponents of the guinea tax will voluntarily pay that sum." It does not require much thinking, as it has already been observed by you, that they did not send a coin when they were given the chance. He then proceeds to say that "they have not received any answer to the inquiry as to what the Council intend to do with £3,440 per annum." He had better have a look at the balance sheets for the last few years and also compare the status of the colleges abroad with those here—a little sense might then show itself in his next "attempt." He proceeds, "Your suggestion that the opponents should give them the lead is a novel one." I always understood that a suggestion was something that was new, likewise novel. I was further not aware that you had made any suggestion in your comments at the end of my last letter and on referring to the issue in question, this is what I find: "Our recollection is that it was the opponents of the Bill who were given the chance of voluntary contribution which they had so applauded, and that not three of them sent a coin—Ed." Where is the suggestion—it would be interesting to know. Personally, I regard it as a statement regarding an actual realised fact. I quite fail to see any suggestion.

His last question, Is the motto of the Council with regard to this question, "Give us your money and we will spend it," is beneath contempt and indicates that it will take a lot of drawing to induce "Half-a-guinea" to give in actual cash what he selects as his *nom de plume*.

"Half-a-guinea" can only have one satisfaction and that is that his attempt is in print—and there it will finish. I may

here deal with one fact that I had overlooked, he says, "I have not observed that any of the members of the Council have contributed, etc."—as it was only the opponents who were given the chance it was hardly likely that the members should have given the lead, but is "Half-a-guinea" quite sure of his statement that "not any of the members have contributed." I think if he will look into this, he will change his opinion.

When "Half-a-guinea" has got his eyes open, as he is evidently a very young kitten, he might tell us if he is for or against the Bill.—Yours faithfully,

VIS UNITA FORIOR.

Sir,

The correspondent in *The Veterinary Record* of June 7th, asks a very pertinent question, viz., "What do the Council of the R.C.V.S. propose to do with the £3,400 per annum, when they get it? Those who 'pay the piper' have the right to select the music. But in this case I fear that the rank and file of the profession will have very little voice in the disposing of the spoils. It is a well-known fact that a certain section 'lead' the members of Council, said section being largely composed of teachers.

Unfortunately a large number of practitioners pay very little attention to the election of members of Council; they simply vote for certain men because such men have already been in the Council. The result is that working practitioners are not sufficiently represented in this august body at Red Lion Square, and the teachers "rule the roost." Hence we may expect some very novel departures when the coffers are filled.

Probably the first will be a sort of "guerilla" warfare with practitioners on the question of advertising. Although a member of Council can with impunity permit his name to be exploited by an instrument firm, it is rank unprofessional conduct for any of the common or garden variety to attempt such conduct. The latter must hide their lights under bushels, and submit tamely to the edicts of a number of individuals who know nothing about the requirements of ordinary practice.

Another departure will be the war on quacks. As if these poor ignorant creatures could possibly do practitioners any damage. It is the quacks *within* the ranks of the profession that do the damage; those who cut down fees, canvass for work, and associate with grooms and horse-dealers. And what about those practitioners who employ travelling gelders to castrate colts? Is this unprofessional conduct which should be put down with a heavy hand? And what about unqualified assistants? We still see these advertised for. But even the warfare mentioned will not make a large hole in the yearly income of the R.C.V.S.

Of course there is the proper remuneration of examiners. This should be made a paying service, and the selection should be by competitive examination, and not as at present conducted. Probably if good salaries are offered the competition will be keen, and there will be no necessity for the secret chamber investigations prior to elections. And having purged the profession from the evils of advertising and effectually sent the quacks to perdition, and having made the examiners as independent as Members of Parliament, there will still be a large balance. How is this to be disposed of? Why of course give free scholarships at the various schools and so attract students. But no! there is a better plan—give it to one of the Veterinary Benevolent Societies. Charity will be needed if the Council put some of their "madcap" rules into force. Practitioners who attempt to live by dignity or by pure science, will soon require monetary assistance to save them from bankruptcy. "Put money in thy purse," is the motto of the Council, while they seek to deprive the practitioners of the means whereby money can be earned. What is the remedy? Elect men as members of Council who understand the requirements of ordinary practice, and see that they form the majority.—Yours, etc.,

"DIOGENES."

## MIDLAND COUNTIES V.M.A.—A CORRECTION.

Mr. J. M. Whyte, of Tenbury, asks us to note that his name was incorrectly given as Mr. T. Whyte in the report of meeting (p. 780).

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

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## THE VICTORIA VETERINARY BENEVOLENT FUND.

Last week we published an account of the annual general meeting of this Fund, which concluded with a personal appeal from the Secretary, Mr. Shipley, for a continuance and increase of subscriptions. We are all familiar with Mr. Shipley's activity as a special pleader on behalf of this particular object; and it is good to hear that, largely as a result of his efforts, the Fund is making "slow and steady progress." It certainly now receives more general support from the profession than was the case a few years ago, but it ought to receive much more still.

Our profession is a small and a poor one. But, after all, there are only a very few objects which should permanently demand a subscription from every working practitioner. One is mutual defence; and this is well provided for by the "Manchester Society," which also devotes a portion of its funds to benevolence. Every member should join this for his own protection; and in so doing he will incidentally give a little support to benevolence. But the Victoria Fund exists solely for benevolence—for the assistance of members incapacitated by age or illness, and of their dependents. Some practitioners can feel quite secure against ever requiring such assistance for themselves or their families; and this means that they are in a position to afford some help to others who are less fortunate. The majority, perhaps, are not so absolutely sure that the future holds no financial trouble in store for them; and these may well spare a few shillings at least every year to a fund which may one day form their own last resource in trouble. A small subscription every year from every member would soon place the Fund in a position to do better work than it has ever been able to accomplish yet.

All such funds are much more effectively supported by a wide measure of popular interest—a steady flow of small subscriptions—than by occasional large donations. Comparatively speaking, there is a good deal of distress existing within the profession, and we have not many rich men to relieve it by large gifts to our benevolent fund. But there is more than enough money in the profession to relieve it all if every member would bear a little share in the burden. Half-a-guinea a year is less than threepence a week—all of us, surely, could afford so much, and most of us spend more upon objects which are not really necessary. And an average sum of half-a-guinea annually from every member, if it came regularly, would probably amply suffice for all the requirements of the Victoria Benevolent Fund.

## FINANCES OF THE R.C.V.S.

It has been assumed, in some recent correspondence that the income under the new Bill will be £3,440 per annum. But the fact has been overlooked that Members practising abroad, who cannot in the nature of things be helped very much by the R.C.V.S., are exempted in the Bill from payment, as also are holders of the Highland Society's Diploma, and all members who have retired from practice. I think that the figure 800 is not too high to cover these three classes of exempted members.

Again it must be remembered that though 3,441 is the official figure of the number of men on the register, yet this is in excess of the men who can be found. A list of 25 members is given in the present register whose names are to be removed, and a like number ought to be reckoned for similar defections since the printing of the Register. We cannot therefore count on more than 3,400 members at the very outside.

Deduct the 800 mentioned above, and you have 2,600 as the number of members who can be called upon to pay a guinea. *If they all pay*, that will mean a gross income of £2,730.

Every councilman knows that the work of the Council has been crippled for want of funds. Many things have had to be left undone, and in spite of all sorts of economies, £465 was spent last year in excess of the income. Deduct this, and you have £2,265 as the sum left to the Council for the proper carrying out of its duties under the Acts and Charters and for the necessary development of the work of Veterinary Medicine and Surgery in the United Kingdom. Who will say that it is too much?

The Examinations are bound to cost more and more every year as progress is made; the work of the Registration Committee, if it is to be really effective, will require a good deal of money; the Parliamentary Committee could easily and legitimately spend fifty times the money it has ever had to work with. The office expenses in connection with the collection of the guineas also need to be taken into account.

The Library and Museum in their present condition are a disgrace. Next year the headquarters of the profession will be visited by Veterinary Surgeons from all over the world, who will be interested to see how the Faculty of Veterinary Medicine and Surgery is housed in this rich capital of the greatest empire of the world. In the Library they will find that you can get veterinary periodicals published in France, Germany, Italy, etc., up to 1892, but not after! The Librarian will have to



explain that the College has never been able to buy books for the library, but has depended on the generosity of a few men. When the Fleming Collection was given twenty years ago it was up to date in European periodicals. Now it is twenty years out of date! And what applies to periodicals applies also to other veterinary literature.

In the Museum they will find that, apart from the priceless skeletons of Eclipse, and a valuable exhibit of dentition, there is nothing worth calling a museum!

Is it too much to say that the profession itself will be judged to some extent by the impression created by a visit to its headquarters?

Those two institutions—library and museum—by the judicious expenditure of money, could be made of infinite value to the profession, both practically and in the way of raising its prestige. Veterinary Surgeons complain that they are not treated with that respect which is their right. The public judges in these days by the show you make. If you had a building with a library and museum anything like those of the Royal College of Surgeons, you would be credited with being a profession of some importance. The profession may not advertise as individuals, but they may pay their guineas a year, and then see that the Council they elect *advertises for them*, in the legitimate ways alluded to. And £2000 a year is a very small sum for such a purpose. It will be the very best investment the profession has ever made!

JUVENCUS.

## ABSTRACTS FROM FOREIGN JOURNALS.

### THE TREATMENT OF IMPACTION OF THE OMASUM.

Bisauge (*Revue Gén. de Méd. Vét.*) discusses this condition. He says that it is a common affection, difficult to treat, and most frequently caused by an interruption of motor function in the nerve-endings in the wall of the omasum, in consequence of an auto-intoxication of gastro-intestinal origin. It is therefore very often encountered as a complication of troubles of the rumen. Recovery scarcely ever occurs naturally, and can only be brought about by a rational methodical treatment continued for a considerable time.

This treatment is directed towards several objects, which may be stated as follows;

(1) Irrigation of the alimentary masses accumulated between the leaves of the omasum.

(2) Stimulation of the contractility of the organ.

(3) Treatment of symptoms of auto-intoxication.

To irrigate the masses of food, warm mucilaginous fluids such as decoction of linseed, or barley water, are given in copious quantities, by force if necessary. After an irrigation of from two to three days the author begins to stimulate the contractility of the walls of the omasum with warm aromatic infusions (such as infusions of camomile), to which some alcohol or, still better, hydrochloric acid (in

the proportion of 20 to 40 minims to 1½ pints of the infusion) is added. In cases of pronounced atony, powdered nux vomica (45 grains to 5j. in the day) is given. Copious cold clysters are given to encourage the expulsion of accumulated fæces and to stimulate the digestive tube.

Most of the purgatives which were formerly so often used, such as Glauber's salts, castor oil, rhubarb, bryony, etc., should be avoided. In their place the author gives only barium chloride, of which 15 to 20 grammes (3¼ to 4 drachms) are made up in electuary form, and given in three doses during the day. A copious evacuation of fæces is almost certain to follow a few hours after the last dose.

To induce rumination to recommence, the author gives 5 to 10 grammes (1½ to 2½ drachms) of powdered ipecacuanha in a warm aromatic infusion.

The best stimulants of the contractility of the omasum are the alkaloids eserine, veratrine, pilocarpine, or arecoline, injected subcutaneously in very weak doses, but several times during the day. The strength should be maintained as far as possible by nutrient fluids; and, during convalescence, the diet needs careful supervision.

When auto-intoxication is evident, the author injects citrate of caffeine, arsenate of strychnine, or hydrogen peroxide. In severe cases a washing out of the blood with an intravenous injection of from 3½ to 7 pints of normal saline solution is indicated. —(*Berliner Tier. Woch.*)

### THE ACTION OF MALLEIN IN CASES OF PERSISTENT NON-SPECIFIC NASAL DISCHARGE.

Isnard (*Revue Vét. Militaire*) without being able to give a scientific explanation of it, calls attention to a new and very noteworthy property of mallein. He has subjected numerous horses, which had persistent nasal discharge with uncharacteristic lesions of the upper air passages, to the mallein test. None reacted; but after a few days a visible diminution was noticed in the nasal discharge, and soon afterwards its complete disappearance followed. This did not arise from a simple coincidence of favourable circumstances; for in all cases, even the most obstinate ones which had withstood the usual remedial measures, the same favourable result was observed.

Often a second injection was necessary; and in such cases this was given about a month after the first. This second injection was regularly followed by complete recovery. The nasal discharge has never reappeared in the horses which Isnard treated.

It is difficult to explain why mallein, a sterile extract of glanders bacilli, is effective against a non-specific nasal discharge. At present the author simply brings forward the problem, and awaits the solution. —(*Berliner Tier. Woch.*)

### THEILER'S TREATMENT OF BOVINE REDWATER WITH TRYPANBLUE.

Evers, of Waren, has just published an article upon this subject. The good results which Nuttall and Hadwen, of Cambridge, obtained in canine piroplasmosis by the use of trypanblue, led Theiler



to try the same preparation for bovine redwater in Pretoria. Theiler has already (*Zeitschr. f. Infektionskr. u.s.w.* Band xi) described his results. Through his work Evers was induced to treat seven cases of bovine redwater with trypanblue in the year 1912, and he obtained cures within from 24 to 36 hours. During the present year, along with Schwedesky of Waren and Zengel of Malchow, he has treated about fifteen cases with trypanblue 1:100 injected *subcutaneously*. All these cases recovered completely within from 24 to 48 hours, without any secondary symptoms. The author and his collaborators can thus confirm the results of Theiler, and they recommend the drug to veterinarians who have to deal with bovine red-water.

Evers strongly recommends the *subcutaneous* in preference to the intravenous injection of trypanblue, as the former method is far simpler, and also acts with absolute certainty and swiftly. The subcutaneous injection of trypanblue 1:100 kills almost all the parasites in the animal's body, within 24 hours, and removes all further danger. Trypanblue is an aniline dye, which easily dissolves in water and bears a sterilisation of 24 hours well. If an abscess arises at the site of injection, it should be opened. Animals treated with trypanblue undergo a slight blue staining of the mucous membranes, which disappears after a fortnight. Trypanblue, if used in time, saves every animal affected with red-water within 48 hours. After the injection the temperature rises, especially in severe cases; and then sinks within from 24 to 36 hours to the normal, where it remains. Twenty-four hours after the injection, parasites are no longer demonstrable in the blood.

From time to time the parasites reappear in the blood, but only in small numbers. This shows that all the parasites are not destroyed by the drug, but the few which remain can in no case give rise to a recurrence of the disease. It is a fact that bovine red-water is a disease the parasite of which remains in the blood after the animal has recovered from the illness, and it has been demonstrated that, when all parasites in the blood have finally disappeared, the animal can again be infected. But as trypanblue does not destroy all parasites in the blood, it may be expected to confer a lasting immunity.

Evers considers, therefore, that in trypanblue we possess a preparation which renders it possible to control the dangers of artificial immunisation (protective inoculation) against red-water, to cure the natural disease with certainty within from 24 to 48 hours, and thus to reduce the mortality from the disease to almost *nil*. Death only occurs if 50 per cent. of the blood corpuscles have been destroyed, and this can be prevented if the treatment is instituted in time.—(*Berliner Tier. Woch.*)

W. R. C.

After discussion in each case, the Glasgow Corporation agreed to give the Town Clerk an increase of £500 a year, the Medical Officer £100, and the Chief Veterinary Surgeon and Meat Inspector £50. Apparently the morals of the citizens are more costly to keep in order than their health.—*Meat Trades' Journal*.

# NATIONAL VETERINARY MEDICAL ASSOCIATION. (NORTHERN BRANCH).

A meeting of the General Purposes Committee was held at the Grand Hotel, Aytoun Street, Manchester, at 2.30, on June 5. The President, Mr. W. A. Taylor, occupied the chair. The following gentlemen signed the attendance book: Messrs. E. H. Stent, J. A. Gold, Richard Hughes, J. McKinna, A. W. Mason, H. Sumner, J. Clarkson, H. G. Bowes, J. W. Brittlebank, G. H. Locke, and A. W. Noel Pillers.

Apologies for non-attendance were received from Messrs. H. J. Dawes, J. Malcolm, J. H. Carter, G. Elphick, R. Jones.

The minutes of the last ordinary meeting were read, approved, and signed by the Chairman.

Proposed by Mr. J. A. Gold, seconded by Mr. J. McKinna, and carried unanimously.

"That Messrs. Taylor, Locke, Brittlebank, and Pillers constitute a special sub-committee to draft rules to be submitted to the General Purposes Committee for the guidance of the branch."

Proposed by Mr. Brittlebank, seconded by Mr. Hughes, and carried unanimously:

"That the financial arrangements as suggested by the Treasurer of the N.V.M.A. be allowed to stand." Arising out of the discussion on the "Tuberculosis Order of 1913," a member brought forward a point concerning veterinary administration, and it was proposed by Mr. J. Clarkson, seconded by Mr. J. McKinna, and carried unanimously:

"That the member be requested to obtain full particulars from the Executive Committee of the County Council and submit same to the Council of the National Association of Veterinary Inspectors and that the Secretary be instructed to write the above Association supporting the member's action."

Arising out of a discussion on "Milk and Dairies Bill," it was proposed by Mr. W. A. Taylor, seconded by Mr. Brittlebank, and carried unanimously:

"That this meeting views with pleasure the action taken by the Royal College of Veterinary Surgeons with regard to the Milk and Dairies Bill, and that the Secretary be instructed to forward to the Royal College of Veterinary Surgeons a letter conveying the same to the Parliamentary Committee."

A letter was read from Mr. T. C. Toope with regard to fees paid by insurance companies to veterinary surgeons, and the Secretary was instructed to obtain the necessary information asked for and to point out to Mr. Toope that the time has not yet arrived for a resolution of support until full information had been considered by the Committee which had the matter in hand.

The Secretary pointed out that much good had already been done with regard to fees paid to veterinary inspectors by Local Authorities, and it was thought advisable to leave any matters under this heading to the new and important National Association of Veterinary Inspectors.

Proposed by Mr. W. A. Taylor, seconded by Mr. Gold and carried unanimously, "That Mr. A. W. Noel Pillers be elected Honorary Treasurer."

Proposed by Mr. Taylor, seconded by Mr. Locke and carried unanimously, "That Mr. Stent be elected Auditor."

The Secretary reported that a new Society had been formed within the district of the Branch which would probably become affiliated with the National Veterinary Medical Association.

Proposed by Mr. J. McKinna, seconded by Mr. Gold and carried unanimously, "That the Secretary be instructed to write to all the Divisions suggesting the

advisability of all printed matter of each Division bearing the words "A Division of the Northern Branch of the N.V.M.A."

The announcements of meetings by advertisement instead of by post was considered, and the Secretary was instructed to make the necessary inquiries.

The question of the appointment of medical men to be inspectors under the "Cruelty to Animals Acts of 1876" was considered, and the Secretary's action in the matter approved of.

The question of Live Stock Officer for the County of Yorkshire was considered, and the Secretary's action in the matter approved of.

A vote of thanks to the President and Secretary, proposed by Mr. J. McKinna and seconded by Mr. Sumner, terminated the meeting.

### MAMMITIS OR MASTITIS IN COWS.\*

By GEO. LOCKWOOD, M.R.C.V.S., Peterborough.

At the request of our worthy and highly esteemed President, I have the honour of appearing before you to make a few remarks on a subject that I think will appeal to most, if not all of us present here to-day, in view of the fact that we are chiefly engaged in country practice, and the subject I am about to deal with is one which we very often meet, and speaking for myself, I am afraid that the result of our attention and treatment is not always all that we could desire; and in the hope that during the discussion on the paper we might individually derive some benefit from a free interchange of opinions, particularly as regards the different methods of treatment adopted.

I propose at the outset to just refresh our memories by a very short description of the anatomy of the bovine mammary gland. This structure consists of parenchymatous tissue and stroma, the formation of the former being partly alveolar and partly tubular. In the connective tissue of the stroma there are variously shaped spaces lined by a membrane similar to the alveoli of the lung in the smaller bronchi, and these open into gland ducts; both these are lined by low cylindrical epithelium and together form the milk secreting tissue. The milk flows out of these into the milk ducts to pass into a large cavity at the base of the teat, termed the galactophorous sinus. The ruminant's udder possesses only one galactophorous sinus and teat for each quarter, in the mare's udder each teat is supplied by two sinuses. From the galactophorous sinus a narrow canal, lined with mucous membrane leads to the outer air. The stroma consists of connective tissue and elastic fibres, which form a capsule under the skin and surround the udder. From this capsule the stroma is continued inward into the gland, filling the space between the alveoli and ducts of the gland, and is analogous to the interstitial connective tissue of the lungs. The quantity of stroma varies considerably. During lactation it diminishes and in its place alveoli develop. In the udder of young animals connective tissue predominates: between the larger divisions of the gland and their ducts lie considerable masses of connective tissue, which often contain elastic fibres and fat. A double system of lymph vessels exists in the udder. The one lying near the surface arises from the capsule and is connected with the lymph vessels of the skin, the other invests the alveoli, which are surrounded by five lymph vessels. Fürstenburg was the original observer to distinguish these two systems of lymph vessels. He also noticed that during lactation the lymph vessels appear to be distended with lymph. The alveoli are directly surrounded by lymph

capillaries, which in their turn are surrounded by capillary blood vessels, these lie partly on the lymph spaces, into which they pour fluid contents and leucocytes, especially during lactation. The white blood corpuscles are believed to pass from here even into the alveoli of the gland. This intimate relationship between the alveoli and the blood and lymph vessels is of the greatest importance in studying the development of disease of the udder. The skin covering the udder shows no special peculiarity, it has few hairs, but on the other hand it has in places well developed sebaceous glands and large papillary bodies. In cattle the skin of the teats is free from glands and has no hair.

### ACUTE MAMMITIS—ITS PATHOLOGY AND VARIETIES.

Although acute inflammation of the udder is not essentially different from inflammation in other parts of the body, yet it exhibits certain peculiarities, which are favoured by particular injurious influences. The milk secreting cavities and milk ducts being lined with mucous membrane and communicating directly with the outer air, their diseases closely resemble those of the respiratory and digestive tract. During lactation acute inflammation of the udder is most common, but at other times isolated cases are seen, and under very rare circumstances inflammation of the udder has been noticed in virgin cows. One authority (Guillebeau) says that cows most frequently suffer from mastitis between the fifth and sixth year. The physiological activity of the milk glands in many respects favour the development of inflammation. The early processes of lactation, particularly the congestive stage, so closely resemble acute inflammation, even in their outward manifestation, that it is difficult to draw a sharp line between the two. Both the vascularity of the gland and the processes necessary for the development of secretory activity clearly favour the appearance of disturbances which readily take on an acute inflammatory character, it is therefore very natural that most diseases of this kind occur during the years of parturition. The anatomical formation also favours acute inflammation. The milk forms an excellent cultivating medium for bacteria, to which the ducts offer an easy point of entrance. Finally the position as the udder is exceedingly favourable to the entrance of infectious material, and as injuries to the skin of the udder, and especially to the teats, are frequent in cows, they easily form the point of origin for infectious inflammation.

*Causes.* These may be divided into mechanical, chemical, thermal, and specific. In cattle the first takes the form of horn thrush and similar injuries; large udders may be trodden on by other animals or by the cow herself when rising. Chemical or thermal irritants are much less frequent, though the milk may undergo change in the udder, irritant substances form and produce acute mastitis. Our knowledge of such conditions, however, is still very limited. Frost bite seldom attacks more than the skin, though it is possible the udder may sometimes catch cold. As we find in other mucous membranes that inflammatory processes are often caused by chills, it may possibly be the case in the udder also. More important than any of these are the specific irritants. After Franck had directed attention to the point, Kitt, Bang, Nocard, and others commenced investigations and described different bacteria as the cause of inflammatory processes in the udder. Infection of the udder may occur by those paths.

*The skin:* in which, as already remarked, slight injuries often occur, may form the starting point of infection. We see, therefore, why cows are more frequently affected with disease of this character than mares—their teats are injured during milking and infected at the same time. Disease once produced spreads, especially in the course of the superficial lymph vessels

\* Read at the meeting of the Lincolnshire and District V.M.S.

of the udder, and therefore first affects the skin and subcutaneous tissue. This method of spread, however, is less frequent than the next one.

*The mammary duct.* In many cases a drop of milk remains hanging at the mouth of the duct and forms a favourable cultivating medium for pathological bacteria, which pass from here into the galactophorous sinus and finally into the smallest divisions of the infected portion of the gland, producing according to their degree of virulence a more or less violent inflammation of the parenchyma of the udder. At the first glance it seems astonishing that inflammatory processes are more frequently produced in this way. The apparent rarity is explained by the fact that an effectual closure mechanism exists in the milk duct, and that the milk seldom remains pent upon the udder for any long time. Numerous experiments made by Franck, Nocard, Kitt, Bang, and others, in which pure cultures of certain bacteria have been injected into the galactophorous sinuses, show that inflammation may start here. Lately it has been disputed whether inflammation of the udder can be caused by not milking the animal. Whilst this was formerly regarded as a frequent cause of mastitis, the general view nowadays is that retention of the milk alone seldom produces disease of this description. It is evident that neither view is quite right. The retention of milk, as such, certainly does not produce mastitis, but it favours its production, because of the readiness with which decomposition and the growth of bacteria occur in the retained milk. This explains why mastitis is most common during hot weather; some authorities state that most cases occur between March and September. Other causes may also be at work, such as the animal's condition, the attention it receives, and the time during which the calf is with it; but it is unquestionable that warm weather favours decomposition of the milk and the multiplication of bacteria in it.

*The blood stream.* Infection by this means is probably rare, though it appears possible. It also seems possible that when the disease is widely spread, or conditions are favourable for the transmission of the specific microbe, mastitis may take an epizootic form, the infected material being easily carried from animal to animal during milking. It is not astonishing considering the varying virulence of pathogenic microbes, that many different forms of udder infection occur, so that sometimes only slight irritation, sometimes severe inflammation, or sometimes even gangrene results.

The acute inflammatory processes in the udder are divided in two groups, namely: Inflammation of the stroma, the interstitial tissue of the gland which again is divided into two groups—the traumatic and the phlegmonous. Inflammation of the parenchyma of the gland and of the lining membrane of the milk ducts.

Inflammatory processes confined to the surface of the milk canals are somewhat similar to catarrh of the mucous membranes. Where, on the other hand, they extend to deeper tissues they lead to abscess formation or gangrene. So that inflammation of the parenchyma of the udder may be divided into three forms: the catarrhal, the pustular, and the gangrenous. Considering the intimate relationship between the parenchyma and the stroma of the gland, it is scarcely surprising that acute inflammatory processes often extend from one to the other, and that in inflammation of the parenchyma the stroma is sometimes affected, and in disease of the stroma the parenchyma often suffers. The former occurs the more readily because the blood vessels of the udder ramify, without exception, in the stroma. Although no sharp line can be drawn between diseases of the parenchyma and those of the stroma, it is yet generally possible, having regard to the development and course of the disease, to indicate its point of origin and clinically to observe this point of distinction, which

affords exceedingly important indication both for the treatment and prognosis of the disease.

*Traumatic mastitis.* Only surface injuries remain confined to the connective tissue of the udder, the deeper reaching involve the real gland tissue. Cattle are particularly exposed to injuries of this kind.

*Phlegmonous mastitis.* This disease, previously described as superficial inflammation of the udder, affects the skin, subcutis, and interstitial connective tissue. It generally starts from the teats which in the cow very frequently suffer from surface injuries, the rough hands of the milker abrading the skin and possibly conveying infectious material; the straw with which the cow is bedded may also cause injury and infection. The micro-organisms first enter the skin and sub-cutis and set up inflammation, which generally extends to the capsule and the stroma of the gland. The process therefore, seldom remains confined to one quarter, but extends to several, or may even attack the whole udder. The isolated course of the lymph vessels of the separate teats sometimes causes the disease to remain confined to single sections of the gland. The skin and subcutaneous tissue are at first oedematous, and later become infiltrated with plastic material, slight exudation of blood is not uncommon. We have to deal then with an erysipelatos or phlegmonous disease of which the skin or subcutaneous tissue forms the special seat.

*Symptoms and course.* The condition is introduced by redness and swelling which are generally diffuse, and seldom limited to particular portions of the gland. It appears suddenly, and the skin is injected; at first it appears bright, and afterwards bluish. The swelling is then soft and doughy, but later becomes hard and firm and requires some force to indent it. The skin is often exceedingly hot but pain, as in subcutaneous inflammation, is seldom severe, nor does the milk show much change in quality, though the quantity certainly falls off. At the outset, slight fever is present; the lymph glands of the udder swell and the tumefaction spreads. The condition may disappear in from four to eight days, the symptoms gradually recede, the redness disappears, the swelling subsides, and the milk secretion become normal. In other cases abscesses form. In or just beneath the skin less frequently in the superficial portions of the gland, several fluctuating points develop, which after a short time, break and discharge pus. Such abscesses are distinguished from those occurring during parenchymatous mastitis by the superficial position and slight size. This disease may also lead to other complications like gangrenous inflammation.

*Differential Diagnosis.* The present affection is distinguished from diseases of the parenchyma by the little change in the milk, by the implication of several sections of the udder, and by the marked simultaneous changes in the skin. It is more likely to be mistaken for the oedema occurring in the udder at the time of parturition. In the latter condition, however, the well-developed inflammatory symptoms, such as heat, redness and pain are wanting.

*Causes.* We clearly have to deal with phlegmonous or erysipelatos inflammation, caused by infection through slight fissures and cracks in the skin, particularly of the teats. The disease is probably caused by pyogenic cocci or other microbes. Kitt produced the disease in cows by infecting with the bacillus of malignant oedema.

*The Prognosis* depends on the virulence of the micro-organisms, as shown by the violence with which the process develops and by the degree of the general disturbance, particularly of fever. As a rule the process is benign, but abscess formation prolongs it.

*Treatment* is similar to that in phlegmonous conditions in other parts of the body. Cold applications are contra indicated, and the best results follow the applica-

tion with slight friction of mild liniments, such as the ordinary Lin. saponis. The parts may also be washed with lukewarm solutions of disinfectants, especially if the teats are injured. The udder must be kept warm, and may be covered with wadding to assist resolution. Local injuries must be kept as clean as possible by washing with an antiseptic lotion; after which they are smeared with any suitable material, such as boric acid ointment. It is also advisable to administer occasional small doses of some reliable saline aperient or laxative during the course of the disease.

#### *Parenchymatous Inflammation of the Udder.*

This term is not quite correct, for strictly speaking the parenchyma only consists of the alveoli and their epithelium, whilst we include in this group the diseases of the milk canals and galactophorous sinuses. Not infrequently the inflammation is confined to the galactophorous sinus and the larger milk ducts, a condition comparable to bronchitis, which condition some authorities term catarrh of the udder. In other cases it extends to the alveoli and stroma, and leads to pus, or abscess formation, or gangrene. We therefore recognise three forms of parenchymatous inflammation of the udder, the catarrhal, the pustular, and the gangrenous.

*Catarrh of the udder.* This disease consists of inflammation of the lining membrane of the milk ducts. Sometimes the galactophorous sinuses alone suffer, but generally the large milk ducts are also attacked. The process may also extend to the smaller milk ducts and even into the alveoli of the gland. If the process is confined to the galactophorous sinus and larger milk ducts, the quantity of milk secreted is little diminished, though, as inflammatory exudate from the diseased mucous membrane is mixed with it, the quality may be considerably altered. The more the small ducts and alveoli are involved, the greater the diminution and change in the milk. In consequence the disease by no means offers a constant train of symptoms.

*Symptoms and progress.* The surface of the udder is little changed, swelling is entirely wanting, while the redness may be slight, but pain in the depths can be detected on pressure and by the sensitiveness shown during milking. General condition is little altered. The principal changes are to be found in the milk, which contains clots of various sizes and often drops of fat. After standing for some time the milk may show a yellowish covering, or sometimes it may be reddish in colour from admixture of blood. The reaction is generally normal, but it may be acid or excessively alkaline. The process sets in suddenly and attacks sometimes only one and at other times several sections of the udder. In most cases it disappears in a few days, the milk becoming normal. Sometimes, however it takes a chronic character, the milk retains its abnormal appearance and may be mixed with pus, whilst the mucous membrane of the galactophorous sinus gradually becomes thickened and feels on palpation like a firm cord, while the swelling extends from the sinus into the other parts of the gland. Should the process in the smaller milk ducts become chronic, it causes localised thickening and induration of the udder. In other cases the inflammation leads to stenosis or occlusion of the milk ducts, with change in the affected sections of the gland, the induration extending as far as the skin. Abscess formation however is not often seen.

*Prognosis* depends principally on the course of the disease, the longer it has lasted the less the chance of complete recovery. In some cases the function of the udder may be destroyed for the whole of one lactation period. The outlook becomes very grave when extensive thickening and hardening take place, and even small thickenings may cause trouble on account of their forming new points of origin for the disease at the next milking period.

*Causes.* Without doubt the disease may be caused by chills, or by chemical decomposition, or other change in the milk while in the udder, causing it to become irritant. The fact that it is generally confined to one section of the udder indicates its origin through the sinuses. It is probably due to invasion by microorganisms of slight virulence, which find a favourable soil in the milk. Opportunities for such infection are very frequent and this disease is often seen widely disseminated, being carried by the milkers from one animal to another. Microbes have been directly recognised in the diseased udder or in the milk and the disease produced by injection of pure cultures. Nocard and Molle-reau recognised streptococci as the cause of the disease, whilst Bang thought that staphylococci produced it. Hock saw the affection during the course of foot-and-mouth disease. Several portions of the udder were often simultaneously affected.

*Treatment.* With a view to prevention the greatest care should be taken against introducing infected probes, bougies, milk catheters, etc., into the mammary ducts and galactophorous sinuses. In enzootic outbreaks it is advisable to isolate the diseased and provide against transmission of infection by the milkers' hands. Beyond combating inflammation, little more can be done. It is very important however to withdraw the milk frequently and at such times massage will be found to assist the discharge of secretion from the smaller milk ducts. The diseased udder must be kept warm, and where the disease is clearly infectious, antiseptics may be injected.

#### *Purulent inflammation of the udder.*

In this form the inflammation also originates in the milk ducts and alveoli, but instead of remaining confined to their surface it spreads to the depths and to the interstitial connective tissue. The purulent catarrh affecting the lining membrane of the milk ducts is accompanied by phlegmonous inflammation of the connective tissue substance of the stroma of the gland. Franck was first to produce the disease experimentally, by injecting a decomposed meat extract into the galactophorous sinuses in cows. Next day that portion of the udder was inflamed, the milk was curdled, and puriform, containing numerous pus corpuscles and micrococci, and when injected into the udder of a healthy cow reproduced the same disease. Purulent mastitis is clearly produced in a similar way, and therefore always remains confined to single quarters of the udder. Kitt described the disease very thoroughly, he found excessive cellular infiltration of the entire connective tissue of the udder, emigration of cells, even into the lumen of the alveoli, necrosis and shedding of the epithelium of the gland, concretions in the milk ducts consisting of gland secretions.

*Symptoms and Progress.* The disease sets in suddenly with pain and the other symptoms of mastitis, the swelling originates in the interior of the udder, but spreads as far as the skin which is abnormally warm and reddened. Functional disturbance soon sets in, the secretion of milk diminishes or entirely disappears, the milk is curdled, and later appears yellowish from admixture of pus, or red from bleeding; finally it may become more and more puriform and contain curdled material, which blocks the milk ducts. These symptoms are supplemented by fever, loss of appetite, excessive thirst, and depression. The swelling may interfere with the movement of the corresponding hind leg and cause lameness; sometimes symptoms like paraplegia are seen.

Microscopic examination reveals numerous white and red corpuscles, pus elements, and fattily degenerated gland cells in the milk. Chemical examination shows albumen and water to be in increased quantity, sugar and casein to be diminished. Either resolution occurs or the disease goes on to abscess formation. In the first

case, after four or five days, sometimes a little later, the symptoms gradually begin to recede, while the secretion more and more recovers its normal character. In some few cases no permanent disturbance is left, though as a rule the affected section of the udder does not completely recover its functional activity until the next lactation period. Abscesses, however, frequently form. Those which occur in the interstitial connective tissue either perforate into the milky canals or through the skin. They generally lie deep, and when developing in the connective tissue above the udder may lead to the destruction of a large section of the gland, as described by Johnes. Permanent thickening and milk fistulae are not infrequent results of this process. Hard swellings sometimes result from the accumulation of clots in the milk ducts, which gradually become inspissated, and form yellowish crumbling masses, surrounded by a capsule of connective tissue. They also result from abscesses, and not infrequently form the point of origin of disease at a later period. Such suppurative processes may entail grave consequences, and at times lead to pyæmia or septicæmia.

*Causes.* There is no doubt that this form of mastitis is caused by infectious materials entering through the mammary ducts. The experiments of Lister, Roberts, Meissner, Kitt and others show that normal milk contains no organised ferment, and therefore when such is found it must have entered from without. Further, as the diseased process always appears in a single section of the gland, the natural conclusion is that infection follows through the mammary duct. Although infection through the blood stream is possible it is unquestionably very rare. On the other hand opportunities for infection through the milk canal are very frequent. The little drop of milk left hanging in the teat after milking may facilitate it, or milk catheters or other instruments introduced into the mammary duct also act as bearers of infection. The experiments of Franck, Nocard, Mollebeau and others have shown beyond doubt the possibility of this mode of infection. Numerous experiments have been made regarding the nature of the infectious material. Guillebeau found ten different microbes, comprising staphylococci, streptococci and several bacilli, possessing various degrees of virulence. Guillebeau believes that the constituents of the milk, particularly the milk sugar, are decomposed by the microbes and irritant materials produced, which cause inflammation.

*Prognosis.* There is little hope of completely restoring functional activity to the udder during the existing period of lactation. Any further opinion may depend on the progress of the disease. When large tracts of tissue become indurated, full function will not be restored even during the next lactation, and in extreme cases life may even be endangered.

#### *Gangrenous inflammation of the udder.*

Considering the varying virulence of the infectious material, it is not surprising that gangrene sometimes occurs. This form of the disease is commonest in sheep, though it always occurs in cows. The nature of the specific poison is at present little understood. Nocard isolated a micrococcus from the udder of a sheep affected with gangrenous mastitis, pure cultures of which, injected into the mammary duct of healthy sheep, always reproduced the disease, but in other animals only caused slight swelling.

*Symptoms and course.* The disease starts as a very acute parenchymatous mastitis with severe general symptoms; high fever, loss of appetite, great weakness, severe pain and stiff straddling gait, which latter first directs attention to the udder. Local examination first reveals bluish violet spots in the skin, which on palpation are found to be very soft, insensitive and often abnormally cool. These spots quickly spread. They are

surrounded by an inflammatory swelling, which may extend to the lower part of the abdomen and the thigh. The animal stands with the back arched and the hind legs straddled, exhibiting acute pain, and after a short time display well marked symptoms of septicæmia. Not infrequently death occurs in a comparatively short time. In exceptional cases the local process is limited, a dissecting inflammation sets in, which separates the necrotic tract and may result in recovery; this is, however, a rare exception, the greater number of animals die from septicæmia.

*Prognosis* is unfavourable, for in many cases not even the sacrifice of the udder can save the animal's life.

*In treatment* of the purulent and gangrenous form of mastitis, the first point is to prevent infection, or combat it if already existing. The greatest care is required in using milk tubes, probes, etc., introduced into the milk canals. If the disease becomes enzootic, and especially if it takes on the gangrenous form, isolation of the affected cows and disinfection of the stalls is absolutely necessary, it is also advisable to have the affected cows under the special care of one attendant, who has nothing to do with the other milking cows. In purulent mastitis occurring enzootically similar precautions are necessary. Some observers believe that the outbreak of this disease is intimately connected with the use of old, bad straw. The diseased milk should be most carefully removed from the premises, the milk being drawn into a pail kept specially for the purpose and not milked on the floor. Frequent milking of the diseased quarter is just as necessary, for the increase of infectious material occurs chiefly in the milk. Provided the udder is not too sensitive, it should be gently rubbed and kneaded to favour the discharge of inflammatory products from the acini of the gland. The milk syphon is of little use on account of its becoming stopped by clots. The diet should be of such a character as to reduce milk secretion to a minimum. For this purpose purgatives such as sulphate of soda may be used, and under certain circumstances bleeding may be resorted to. The remaining points are to destroy or render innocuous infective material in the udder, and to combat inflammatory changes. The former may be effected by injecting antiseptics, though practitioners hold very different views as to their action; some advise their use, while others consider them of no particular value. In gangrenous inflammation they are generally too late and without effect, but on the other hand they are often very useful in the purulent form. Their effect clearly depends on what tissues require disinfection, though they can penetrate the galactophorous sinuses and large milk ducts, they fail to reach the fine milk ducts and alveoli. A 4oz. solution of boracic acid is generally recommended, or a solution of chinosol (15 grs. to the pint), the injection being distributed through the gland as much as possible by cautious manipulation and allowed to remain in the udder for 10 or 15 minutes. Some veterinary surgeons have had good results. Other injections are also used for this purpose, such as a 2 per cent. solution of alum, or a 2½ per cent. solution of carbolic acid.

In purulent mastitis, warm poultices or fomentations and wrapping the parts in cotton wool will assist in decreasing inflammation. Bang recommends linseed or oatmeal poultices, and the application of woollen cloths wrung out of hot water and kept warm by covering with mackintosh. Fomentation with diluted alkali or soap and water have often been recommended. Once tension and pain diminish, the parts may be smeared with flour paste and covered with wadding. At this stage the application of antiphlogistine or some such preparation, afterwards covering with cotton wool is very often followed by beneficial results. A mixture of two tablespoonfuls of water, four of starch, twenty of glycerine, and one of turpentine is also a good ap-

plication in these cases. When warm, the mass forms a paste, which is applied thickly and left on for fourteen days. From time to time it may be removed to allow of massage, which is of considerable assistance in this disease. Cold is considered by experienced practitioners to be badly borne—a conclusion warranted by the nature of the disease. The gentle rubbing in of un-irritating fats is also useful; or a mixture of equal parts of mercurial ointment, soft soap and lard has a good effect in many cases. As soon as an abscess appears under the skin it should be opened and the cavity cleansed and disinfected. Local induration can often be dispersed by careful massage, though this is of little value when the swelling is of old standing. In gangrenous mastitis early incision into the necrotic parts and the application of antiseptics are alone serviceable. If the process has made much progress, even this treatment seldom suffices and the animal's life can only be saved by amputation of the diseased portion, or of the whole udder; but this operation is seldom performed owing to the fact that in the majority of cases when the occasion for such drastic interference arises the affected animal is not in a sufficiently strong physical condition to withstand the severe shock of the operation. It sometimes happens that in gangrenous mastitis the general symptoms are not very severe, and in course of time the affected quarter or quarters slough right out. During the time this process is going on it is necessary to keep the patient in a clean loose box, and apply antiseptic lotions liberally and often to the affected parts.

I feel that a paper on this subject would be quite incomplete if I should conclude without making some reference to that form of mastitis caused by tubercular infection, which at this particular time is of such great interest and importance to us all. At the same time I shall be very brief in my remarks, as I fear I have trespassed on your time as far as I dare already.

Tuberculosis of the udder may appear as a first and single symptom of tuberculosis in cows which are otherwise quite healthy, although it is much more frequently a secondary infection. It appears in the first stages as a diffuse, painless and comparatively firm swelling, usually of one quarter, and as a rule one of the hind quarters. More rarely it may appear in two quarters at the same time. The milk is at first normal, but in a comparatively short time, usually about a month, it becomes thin and watery, and mixed with flakes, and sometimes, though by no means always, the milk contains tubercle bacilli. It is quite possible to search in vain for the tubercle bacillus in the milk of cows which are thoroughly infected with tuberculosis. Bollinger proved that milk from the udder of tuberculous cows was undoubtedly infectious in 55 per cent. of cases, although the demonstration of the tubercle bacilli in such infected milk succeeded only once in 20 cases. The swollen parts of the udder become more and more indurated, until at last they are almost as hard as a stone. The process frequently spreads from the hind to the front quarter of the udder, and the supramammary lymph glands often become greatly enlarged.

Works consulted: Moller's Veterinary Surgery; Friedberger and Fröhner, Veterinary Pathology.

#### **Action for Cruelty against Railway Company —Horse Injured in Transit.**

At the Bristol Police Court on Tuesday, June 10th, the Great Western Railway Co. were the defendants in a case of alleged cruelty to a horse during transit from Fishguard to Bristol, the summons being taken out at the instance of the Royal Society for the Prevention of Cruelty to Animals. The case was one of considerable importance, and the Counsel appearing were Mr.

Stuart Bevan for the prosecution and Mr. H. H. Curtis Bennett for the Great Western Railway Company. The terms of the summons were that the defendants permitted a certain animal, to wit, a horse to be carried by rail, and owing to injury and fatigue it could not be carried without unnecessary suffering during the intended transit by rail.

Mr. Stuart Bevan said the Great Western Railway Company were charged with an offence under Section 16 of the Horses Importation and Transit Order, 1912, an Order made by the Board of Agriculture under powers conferred upon them. On the day in question the Company, then being in charge of a dark grey horse, travelled that animal from Fishguard to Bristol, when, by reason of its injuries and condition, it must have suffered unnecessary suffering during transit. The facts were that on April 3rd Mr. Reen, a dealer, of Bristol, purchased some horses in Ireland, and consigned four of them to Bristol. When the animals arrived at Fishguard on April 6th they were not accompanied by Reen or anyone in his employ or on his behalf, so that the moment he consigned them to the railway company the persons in charge of the animals were the railway company and the steamship company by their servants over whose system the animals travelled. On arrival at Fishguard on April 6th the animals were taken off the boat and put into a truck consigned to Bristol. In cases of this sort there was always some difficulty in getting evidence as to the condition of the horses or any other animals at any particular point in transit. Necessarily, from the nature of the transit, the only persons who had facilities of observing the condition of the animals were the railway employees. Fortunately, in this case the necessity of calling evidence from Fishguard as to the condition of the animal at that port was dispensed with, because they had a consignment note of the Great Western Railway Company in which a description was given as to the condition of the grey horse in question.

The note reads:—"Live stock invoice. G.W.R. Co. From G.W.R., Waterford, to Bristol, G.W.R., Reen, Bristol, 4 horses." Mr. Bevan said that there was a pencil note to the effect that one horse had a cut over the left eye, and was in weak condition on being received at Fishguard Harbour. So they had the fact that at Fishguard, on the statement of the company, one of these animals was in a weak condition, and were it necessary he would ask the Bench on that evidence, coupled with the evidence as to the condition of the animal on its arrival at Bristol, to come to the conclusion that the horse could not have been in a fit state to do the journey from Fishguard to Bristol without unnecessary suffering. For obviously, a servant of the company would not put a memorandum of that kind on the invoice without some object, and that object was to protect themselves. But the case did not rest on that evidence, but would be established on what happened at Cardiff. It was about five hours' journey from Fishguard to Cardiff, and on the arrival of the truck at Cardiff containing the four horses the Great Western guard whose duty it was to bring the train on looked at the horses and saw that one of them was down. He tried to get it up, but it was in such a state that he could not do so. When the guard recognised that it was impossible to get the animal up he refused to take it on to Bristol, and what was done was this: The other three horses in the truck, which were apparently all right, were taken out of the truck in which the grey horse was lying, and put into another truck and taken on to Bristol by this guard whom he would call before them. The grey horse was later brought on to Bristol in a truck alone. When Mr. Reen saw it on its arrival it was still lying at the bottom of the truck, unable to rise. Its eyes were swollen, and it was in a terrible condition of weakness and distress. A veteri-



any surgeon was sent for, who, after examining it, ordered it to be killed. Inspector Hammond, R.S.P.C.A., subsequently saw the man who was in charge of the transferring operations from the boat to the train, who made a statement to him. These were the facts, and he contended that the animal was conveyed when it was in a weak and injured condition, and it was thus caused unnecessary suffering.

Evidence in support of this statement having been given by witnesses for the prosecution,

Council then proceeded to call evidence.

#### WITNESSES' TESTIMONY.

William Reen, horse dealer, of Bristol, proved purchasing four horses in Ireland and booking them to Bristol. The horse which was the subject of the prosecution was a grey three-year-old. When the horses arrived at Bristol the grey was down, and they could not get her up. He lodged a complaint, and a veterinary surgeon was sent for, but the animal had to be destroyed.

In cross examination, witness said he did not know that the crossing from Ireland was rough, or that the boat was two hours late. The animal was badly bruised about the eyelids.

Percy Thame, quay labourer, employed by the Great Western Railway at Goodrick, stated that he helped to remove the horses from the boat at Fishguard to the railway trucks. The grey horse was "staggering," and seemed in a sweating condition.

Replying to Mr. Bevan's questions, the witness said he did not form any opinion as to whether the horse was fit to travel.

In cross examination, witness said there had been a very rough crossing, and the boat was two hours late. There was, in his opinion, nothing unusual with a horse staggering after a rough sea passage.

Edward White, goods guard, in the employ of the Great Western Railway Company, who took the train to Cardiff, stated that when he found one of the horses down in the truck he called the inspector's attention to the matter, and tried to get the animal up. They were unsuccessful, and the truck was taken off the train because it was thought that the horse that was down might be trampled upon by the others.

Frank Hammond, an inspector of the Royal Society for the Prevention of Cruelty to Animals, stationed in Bristol, in the course of his evidence, gave a description of the injuries to the horse. When he saw it lying on the stone setts outside the cattle pens he found that its head was badly bruised and both eyes were closed. A little blood was coming from its mouth, and it was breathing heavily. In his opinion the horse was suffering considerably. After the animal had been slaughtered he examined the frame, and found that the spinal column had been injured. On the 14th April he went to Fishguard, and there saw a man named Russa, who had been in charge of the trucking of the horses from the Irish boats. Witness was proceeding to refer to his conversation with Russa when

Mr. Curtis Bennett objected, urging that as the man himself was available as a witness, he should have been called.

The Bench decided to admit the evidence.

Inspector Hammond proceeded to state that Russa told him, amongst other things, that he wrote on the consignment note, "One horse cut over left eye, and in a weak condition when received at Fishguard Harbour."

In cross-examination, witness said Russa told him that the animal was in the truck six hours or so before the train started and that he went and looked at it several times and saw that it was standing.

Mr. Wm. James Cave examined by Mr. Bevan:—

You are a member of the R.C.V.S., practising in this city?—Yes.

On the 9th of April did you make a post mortem examination of the spinal column of a three-year-old grey gelding?—I did.

What did you find?—There was a quantity of blood clots in the spinal canal with the spinal column severed in several places. It was impossible to make a more minute examination.

Mr. Richardson Cross (magistrate): You mean it had been cut to pieces with a hatchet?—Yes. I was shown the hide and there was extensive bruising on the forelegs.

Mr. Bevan: Did you find anything else?—The skin surrounding the eyeballs was also damaged.

What effect would the injury to the spine you found have upon the animal's power of standing?—My experience is that it would cause paralysis to the hind limbs.

The Magistrate's Clerk: That is, the clots of blood?—Yes.

Mr. Bevan: What would the effect be from the point of view of suffering to the animal travelling by rail with that injury to the spine?—The animal would be unable to rise; on account of the highly nervous temperament it would be in a state of panic, and would make every effort to get on its front legs. In my opinion to travel a horse in that condition would cause much unnecessary suffering.

Can you tell us whether the bruising on the forelegs and round the eyes was consistent or inconsistent with the animal having attempted to rise?—Quite consistent I should think.

Cross-examined by Mr. Curtis Bennett: Shall I be right in saying with regard to the eyes that the signs of injury there were more in the nature of abrasions than bruises? I suggest it was cuts upon the eyelids?—Yes, cuts and abrasions.

They would cause very slight pain?—It would be very difficult to say, sir.

Is it not always a matter of conjecture to say how much an animal suffers under any given set of circumstances?—Yes, exactly.

The abrasions you found would only be likely to cause the animal slight pain?—I do not think for a moment it would be very acute pain.

The hind limbs were paralysed were they not?—I did not see the animal alive.

These would have been paralysed?—Yes.

There would have been no pain there?—Not behind the seat of injury.

In an injury of the sort you found that this animal had sustained, am I right in saying that the pressure of the effusion is increased both at and near the place of injury?—Certainly.

Would not that increased pressure at the seat of injury have the effect of causing the animal no pain at that seat of injury or behind?—I do not agree with that. The congested blood vessels have a different action to that.

You do not agree it would have no pain posterior to the injury?—There would be no pain at the actual seat of injury, but anterior to the injury I should imagine the animal would be suffering.

You prefer to put the pain not at the seat of injury but in front of the injury.—Yes.

You spoke about the panic a horse, being a nervous animal, gets into. That applies, does it not, if a horse is down for any reason?—Not always; not quite in the early stages. It depends upon how long this animal was down as to whether it would be in a panic. The shocks get more severe when the animal has been down some time.

It does then depend upon the time the animal had

been down, whether it would be in a panic or not?—Yes.

You never saw the animal until after it was slaughtered and cut up to some extent?—Just so.

The Magistrate's Clerk: You have heard the evidence of the witnesses in this case. You have heard the evidence of the guard as to the horse being down at Cardiff and the efforts to get him up. Does that lead you to any conclusion as to whether the horse had received an injury to its spine?—Of course the horse would go down at once when he had received such an injury. Possibly he laid down through exhaustion and the injury happened during his struggles.

The evidence does not lead you to a definite conclusion, then?—It is extremely difficult to decide.

This was the case for the prosecution.

#### THE DEFENCE.

Mr. Curtis Bennett, for the defence, pointed out that the issue was a very serious and important one, not only for that particular railway company concerned, but the transit generally of animals in this country. He would be the last to say that unnecessary suffering was not known during the transit of animals, but it was absolutely impossible to avoid it. The question they had to decide there was whether in that particular set of circumstances the railway company, through the actions of their servants, were criminally liable, for what in fact was done. Mr. Bennett said it was easy to be wise after the event, but said that, looking at the different actions that were taken at different places, were those actions sufficient to bring not only civil liability but criminal liability on the servants of the company and on the company through the servants? He then went on to review the facts as given in the evidence for the prosecution, stating that all the company's servants had acted very properly. Could they say, upon the evidence, that the actions of any of the officials of the company made them criminally liable? Mr. Curtis Bennett pointed out the amount of evidence that was necessary to secure a verdict in a civil case, quoting several cases to prove this. Was there any action of any servant of the railway company, counsel went on to say, which made them responsible for the condition of the horse? There was nothing at Cardiff to show that the animal was unfit to travel lying down by itself. There was no evidence as to when or where exactly the injury was inflicted or sustained. He submitted with confidence that upon the evidence of the prosecution there was no such evidence upon which they could convict the railway company of criminal negligence. There was no sort of evidence which was necessary to make the railway company even civilly liable. There must be even in a civil action, evidence of some definite act of cruelty; mere surmise, mere guesswork was not sufficient.

Mr. William Hunting, examined by Mr. Curtis Bennett: What is your address.—5 Halkin Place, Belgrave Square.

You are a Fellow of the Royal College of Veterinary Surgeons, and a past-president of the College?—Yes.

You have been in court and have heard the evidence in this case?—Yes.

From the details of the post-mortem examination, as far as Mr. Cade can give them to us, what is your opinion as to what the animals suffered from?—Paralysis of the hind quarters.

Caused by —?—Injury to the spinal cord.

Have you formed any opinion, having heard the evidence, as to how that injury might have been caused?—It is not an uncommon accident. An animal gets down and gets his forelegs up against one wall and his hind feet against another. Muscular effort does it.

The Magistrate's Clerk: It can be caused by itself?—It can be caused by violent struggles, both ends of the body being fixed; you want two fixed points to do it.

Mr. Curtis Bennett: You have heard the evidence of the abrasions and bruising over the eyelids?—Yes.

Might the injuries have been caused within a short space of time?—Yes, or by repeated actions. A horse with an ordinary attack of gripes throws himself about and may get the injuries described in half an hour.

Would the injuries to the eyelids, you have heard of, have caused much pain to the animal?—No, very little.

As to this injury to the spinal cord, I need not trouble you, because Mr. Cade has agreed with me that from the seat of the injury backwards, there would be no pain at all?—No.

What do you say with regard to the animal suffering pain in other respects?—There is nothing to cause pain anterior to the injury unless it was the bruising of the forelimbs or head; I do not consider those injuries very great.

Do you say the injury itself caused no pain anterior to the seat of the injury?—You mean just at the spot injured; it was a case of a broken back. Well that is a question somewhat controversial. I have never been able to recognise any pain in a horse with a broken back. Then again there is the fact that they will voluntarily move; with a broken leg they will not. With a broken spine they will voluntarily move and even trail their hindquarters behind them. Another time they will go round and round in a circle, the paralysed hindquarters remaining as the pivot.

Would they do that if suffering severe pain?—I do not think so; I cannot imagine it.

How long does your experience extend over, Mr. Hunting?—I had my diploma 48 years ago.

We have had evidence of the animal being brought over from Ireland with a rough crossing, and staggering on its way to the trucks. Is there anything extraordinary in that?—I cannot believe that the staggering had anything to do with the spinal injury.

Mr. Curtis Bennett: I do not think they suggest that.

Mr. Bevan: Oh, no, we do not.

Witness: I think that was accounted for by the rough journey.

Mr. Curtis Bennett: The other three were not affected?—They were old horses. This was a three year old.

After the journey the horse had 6½ hours rest before it was sent on by rail?—It should have recovered sufficiently from its sea-sickness to go on with its journey.

Cross examined by Mr. Bevan: If a horse after a sea journey was in such a weak condition, so weak that the invoice had to be endorsed, would you advise travelling from Fishguard to Bristol?—I can hardly say. The man who advised the travelling would be a better judge than me.

Do you suggest that?—Yes. He looked at the horse and knew more about its exact condition than I could know.

May I ask you this, if you get a horse down, alone in a truck, and unable to get up would not travelling that horse 40 or 50 miles cause it great pain?—The suffering would be the result of injuries to the head in banging against the floor.

Knocking itself about the whole time?—Oh, dear no, intermittently.

You would never permit a horse you knew to be down and incapable of getting up, to travel 40 miles, would you?—I would not recommend it.

You heard what the condition of the horse was at Cardiff, that it was down and could not get up. Do you think it possible that it sustained the injury to the spine at Cardiff?—I think there is no doubt it was injured between Fishguard and Cardiff.

Therefore it must have been apparent that this horse if sent on from Cardiff to Bristol was in such a state that it could not rise?—Yes.

That the railway company trucked it none the less?



If you had been there would you have permitted the horse having a broken back to be sent to Bristol?—No, I should not.

Why not?—What would be the use to take the animal to Bristol to pole-axe it when it could be done at Cardiff?

Would the animal have suffered a good deal less?—I do not think it suffered much.

Would it have been more merciful?—It would have looked nicer.

Would it have been more merciful in so far as it would not have been affected by these abrasions?—It could not have suffered much because they are described as abrasions.

No, bruises and abrasions.

The Magistrates' Clerk: Some would be accounted for before Cardiff was reached.

Mr. Bevan: The cut over the left eye would be, clearly. We were told that the forelegs were extensively bruised.

The Magistrates' Clerk: They did not say which leg it was.

Mr. Bevan: The forelegs.

Witness: I understood it was the off leg.

Mr. Bevan: Mr. Cade told us it was the forelegs.

Mr. Cade: Both forelegs.

Witness: That looks as if he had not remained in one position.

Mr. Bevan: How do you account for the bruises on the upper part?—I do not know unless they occurred at Cardiff when they tried to take him out.

We do not know that they tried to take him out at Cardiff?—I beg your pardon. I mean Bristol when the vet. examined him.

Re-examined by Mr. Curtis-Bennett: Supposing the animal was lying down at Cardiff would there have been anything to show a man in the position of Guard White that its back was broken?—No. It is a very difficult thing to diagnose. There might be three or four reasons why the horse could not get up behind.

This was the case for the defendant.

Mr. Bevan addressed the magistrates on the points of law arising out of the cases quoted by Mr. Curtis Bennett.

After consulting in private, the Chairman of the Bench said they had very carefully considered the case, and they found as a fact that the horse was conveyed

from Cardiff to Bristol in such a state as to cause it unnecessary suffering, and that the defendant Company in charge there, of permitting it. There must be a conviction; the defendants must pay a fine of £2 and £5 5s. costs.

### The Bacillus of Distemper.

Apart from the veterinary and economic aspect of distemper, it offers the bacteriologist an opportunity of studying a contagious disease of the respiratory tract. The list of investigators since the time of Pasteur includes the names of many medical men. It is highly probable that the question of the specific organism is on the road to settlement. Dr. J. P. McGowan, in 1910, was the first to describe a particular coccobacillus found in pure culture in the trachea and lungs of dogs which succumbed to typical distemper in the laboratories of the Royal College of Physicians of Edinburgh. The contagion spread to other laboratory animals not usually considered susceptible to the disease. He also obtained the same organism from kennels in various parts of Scotland where distemper was raging. The finding of this organism in pure culture in the trachea of dogs dying of distemper was corroborated by Dr. Leitch, of Dundee. In 1901 Dr. Monckton Copeman had described before the Royal Society a somewhat similar, but not identical, organism. Dr. McGowan claimed to have produced typical distemper by introducing into the nostrils of dogs cultures of his bacillus. Quite independently, Ferry, working in the laboratories of Messrs. Parke, Davis and Co. in Detroit, obtained an organism identical with McGowan's, to which he gave the name *Bacillus bronchicanis*. The scrupulous precautions he took against natural conveyance of the disease to the animals under experiment added greatly to the strength of his conclusions. Two workers in the Department of Experimental Pathology of Cornell University—Torrey and Rahe—have gone into the whole subject very carefully and fully, without preconceived notions or predilection for any particular microbe, and their results, which are given at length in the *Journal of Medical Research* (January, 1913), prove apparently beyond a doubt that the organism described by McGowan is the specific cause of canine distemper.—*The British Medical Journal*.

### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks		Animals		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Outbreaks.	Slaughtered.*
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
GR. BRITAIN.													
Week ended June 14	13		15				2	7	59	129	1	65	772
Corresponding week in	1912	10		12			2	3	34	67		67	1172
	1911	15		30			4	4				76	1006
	1910		30	34			5	12				38	304
Total for 24 weeks, 1913	306		329				82	236	1595	3261	121	1116	16072
Corresponding period in	1912	475		531			79	162	2027	4511	162	1637	21152
	1911	446		557	1	18	100	261			302	1216	13386
	1910		761	920			168	466			312	650	5966

† Counties affected, animals attacked: Durham 1, London 3, Middlesex 1.

Board of Agriculture and Fisheries, June 17, 1913.

### The London Orphan Asylum.

Dear Sir,

May I ask you to intimate the members of the profession that I am a holder on behalf of the Victoria Veterinary Benevolent Fund of six votes in the London Orphan Asylum.

Should any of our members be interested in a case I shall be pleased to send the votes on to them.

Sincerely yours,  
WM. SHIPLEY.  
Southtown, Gt. Yarmouth.

### The Athletic Sports of the R.V.C., Camden Town.

These annual sports were held at the Kensal Rise Athletic Grounds on Wednesday afternoon last. The weather was superb from the point of view of a spectator, but very exhausting from that of a competitor; and probably the extreme heat had something to do with the fact that only comparatively slow times were recorded. However, there was no lack of keenness; some close contests were witnessed; and the large gathering of students, teachers, and friends passed a wholly enjoyable afternoon. At its close Mrs. Wooldridge presented the prizes; and the following list gives the names of the successful competitors in the various events:—

100 Yds. Scratch.—Final heat: K. H. Soutar, 1; R. H. Stalker. Time, 11 secs.

Throwing the Cricket Ball.—H. McD. Paul. Distance, 102 yds. 10 in.

Putting the Weight.—R. H. Stalker. 30 ft. 8½ in.

Long Jump.—J. Daly, 1; L. G. Housden, 2. 18 ft. 10 in.

120 Yds. Hurdles.—Final heat: K. H. Soutar, 1; J. C. Coleman, 2; F. L. Haydon, 3. Time, 19 4/5 sec.

Sack Race.—H. Chown, 1; W. B. Howe, 2; J. Gibson, 3.

High Jump.—K. S. Simpson, 1; J. E. Barnes, 2. Height, 4 ft. 10 in.

220 Yds. Hep.—Final heat: J. E. Barnes 1; R. H. Stalker, 2. Time, 25 secs.

One Mile Walk.—F. L. Haydon, 1; H. H. Curzon and W. B. Howe, dead heat. Time, 9 min. 29 2/5 secs.

Half-Mile Scratch: K. S. Simpson, 1; L. G. Housden 2; W. E. Little, 3. Time, 2 mins. 18 4/5 secs.

Obstacle Race: H. Chown, 1; G. H. Bennett, 2; D. C. Greene, 3.

Quarter-Mile Scratch.—R. H. Stalker, walk over.

One Mile Hep.: L. G. Housden, 1; W. A. Dickinson 2; T. L. Wright, 3. Time, 5 mins. 11 1/5 secs.

Ladies' Race: Miss Wyborn.

Relay Race (Inter-Class): Class D, 1; Class C, 2; Class B, 3.

Consolation Race: E. C. Bowes, 1; P. S. Sparling, 2.

College Derby (Donkey Race): J. Gibson.

Tug-of-War.—Final heat: Class B beat Class C.

The championship competition, in which the competitor gaining the highest total of marks in the various events is entitled to hold the Wheatley Challenge Cup for a year, resulted in a tie between K. H. Soutar and L. G. Housden.

### Personal.

Mr. STANLEY WOODS, the veterinary surgeon, who is acting for Mr. Abrams during the latter's absence on leave, sustained a regrettable accident in the course of his work last week. He was kicked full in the breast by a restive horse and, although the injury is apparently not dangerous to life, the breast bone has been damaged. He was removed to hospital on Saturday, 17th ult. —*The Straits Times.*

### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, June 13.

REGULAR FORCES. ARMY VETERINARY CORPS.

Lieut. W. Halstead resigns his commission. Dated June 14.

SPECIAL RESERVE OF OFFICERS.

ARMY VETERINARY CORPS.

W. Halstead, late Lieut., A.V.C., to be Lieut. Dated June 14.

### OBITUARY.

JOHN LITTLE, M.R.C.V.S., Abbey Town, Cumberland.

1863, Graduated, Edin: April, 1880.

Mr. Little died on June 11th, from cardiac failure, at the age of 76.

ARTHUR LAWRENCE POLLARD, M.R.C.V.S.

Liverpool: Dec., 1912.

Death took place on May 18th, from acute broncho-pneumonia. Aged 33 years.

GEORGE FREDERICK GOOCH, V.S. who has been living with his son, Fredk. Leeds Gooch, F.R.C.V.S., at 19 St. Martin's, Stamford, during the last 17 years, died at Holt, Norfolk, on June 16th, of syncope. Aged 84 years.

### CORRESPONDENCE.

#### THE FINANCES OF THE R.C.V.S.

Sir,

The simile of your correspondent "Vis Unita Fortior" is altogether beyond the mark. The question of the finances of the R.C.V.S. still remains, and in trying to make my meaning clear on the point I will be more accurate in my figures than previously.

There are 3,441 M.R.C.V.S. on the Register; one guinea each per annum would mean the sum of £3,613 1s. I asked the question, "What the Council propose doing with £3,440 per annum?" He replied by referring me to the balance sheets for the past few years—no satisfactory solution to my query. I may tell him I have studied these very carefully, but so long as the policy remains, "The whole loaf or no bread," I must simply look on and wait developments, and I may say further that if the Bill goes through Parliament as it stands I will not offer any resistance and may pay once, but it will only be once.

If we take the number of M.R.C.V.S. at 10/6 each it gives us £1,806 10s. 6d., which is quite sufficient to meet our requirements, and leaves £1,000 to invest—sufficient to put the R.C.V.S. on a firmer basis than at present.

"Vis Unita Fortior" asks me to tell him whether I am "for or against" the Bill. I am decidedly "against" it as it stands, for three reasons. It is unnecessary. Every clause calculated to benefit the profession has been dropped, and it would lead to extravagance. On the other hand I am equally in favour of the members paying 10/6 each annually, to secure which—whether by Act of Parliament or a voluntary payment, is immaterial.

I have given "Vis Unita Fortior" a straight answer to his question. May I ask him "to turn neither to the right nor left" in reply to mine. What do the Council intend to do with the amount that the guinea tax would produce?—Yours faithfully,

"HALF-A-GUINEA."

Communications for the Editor to be addressed 20 Fulham Road, London, S.W.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1303.

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VOL. XXV.

## THE HISTORY AND DEVELOPMENT OF VETERINARY LITERATURE.

Not every one derives the same pleasure from history or literature, but there must be very many who are interested in the development of the history of their own special calling. We veterinarians cannot fail to be curious as to the very earliest records of the diseases of animals and the treatment, curative and preventive, adopted by the men who studied and practised in far off times. The earliest references were apparently written by men who were not practitioners but agriculturists, or soldiers, or naturalists. So at least we gather from a most interesting article by General Fred Smith which appeared in the last number of *The Journal of Comparative Pathology and Therapeutics*. After a short introduction the author goes on to inquire into the state of veterinary practice in ancient Assyria and Egypt. Then reference is made to Persia, India, and Arabia, whose contributions seem hazy. But we get on more solid ground on reaching Greece and Rome. Collumella, Vegetius and Apsyrus are names we have all met in short paragraphs at the commencement of more or less erudite veterinary books. This article enables us to measure these men more accurately, and it demonstrates that at least very many of the great animal plagues were recognised by them—some even accepted as contagious and met by measures of isolation. In the June number of the Journal the article is continued, and we strongly advise any reader who missed the first article in the March issue to obtain a copy at once. He will derive instruction and interest, and he cannot but recognise the vast amount of labour put into the work by General Smith.

## CANINE ECZEMA.

Mr. Chamberlain's essay upon this subject, published last month, is worth careful reading. The conclusion of the discussion, in another column, is no less so. Both tend to show how little accurate knowledge we possess upon the subject. Canine eczema is so frequent, and often so acute, that it forms one of the most troublesome subjects in everyday practice amongst dogs. And there is scarcely any condition so common regarding which we have less soundly established knowledge.

The frequency of the disease renders it possible for most practitioners to study it. Those who do so will find many difficulties, and the first will be those of definition and differentiation. Both medical men and veterinary surgeons have always used the term "eczema" more or less loosely, and it is probable that many men include essentially different conditions under it. Broadly speaking, whatever

conditions we include as "eczema," we find their ætiology, prevention and cure alike provide ample room for difference of opinion. A few ætiological facts seem on the way towards becoming generally accepted—for instance, there is very strong reason to suppose that heredity is an important predisposing cause. Among exciting causes we find such different factors as diet, bacteria, and neuroses all blamed as inducing eczema, and possibly none of these varying opinions is quite unfounded. At this stage in our study of the question, we should never forget that the so-called "different forms of eczema" may be quite different diseases.

There is no doubt that many practitioners, following very different methods, are successful in dealing with most forms of eczema, but all will agree that many cases are liable to recur at varying intervals. The whole subject is well worth long and systematic study by any practitioner who is concerned with dogs. Some parts—such as microscopical work—would be very difficult and dubious. On the other hand, in a very common and often recurrent disease of pet dogs, it would be much more easy to obtain reliable histories, to follow the progress of patients, and to vary systems of management, than it often is in horse and cattle practice.

## ROYAL SANITARY INSTITUTE CONGRESS AT EXETER.

The programme for the Conference of Veterinary Inspectors at the R.S.I. Congress this year may well be described as excellent. First, an address by Prof. Penberthy, which, as all his former students know, may be expected to be marked with forethought and tact, and to be most instructive. Mr. W. Ascott, M.R.C.V.S., of Bideford, will open the discussion on the Milk and Dairies Bill, now before Parliament, and there is no need to urge the importance of this measure to the veterinary profession, and the advantage of thorough discussion. "Bovine Tuberculosis and its Diagnosis," is a subject of no less importance, and as it will be introduced by Mr. Stableforth, F.R.C.V.S., of Colyton, an instructive and practical contribution may be looked for. The next subject touches another aspect of veterinary science. "The transmission of disease from animals to man," by Mr. Archer, M.R.C.V.S., "Private slaughterhouses, public abattoirs, and the Freibank system," will be introduced by Dr. H. Peck, Medical Officer of Health for Chesterfield, and the least our profession can do is to attend in numbers if only to show appreciation of the doctor's attendance.

No more varied and important programme has yet been set before a conference of veterinary inspectors at these Congresses, and this, together with the fact that this year for the first time our Con-

ference will be held in the middle of the week, should ensure a record attendance of the veterinary profession. It is most probable that the Conference will have to continue its labours on the Thursday morning, and this adjournment, although necessary on former occasions, has never before been possible. It only remains now for the veterinary profession to show their appreciation of the Royal Sanitary Institute's action giving them a more suitable day for the Conference of Veterinary Inspectors.

It must not be imagined that the strictly veterinary Conference, to which all members of the profession, whether delegates to the Congress or not, are invited, is the only meeting which should be attended. On Tuesday the 8th the Sanitary Science and Preventive Medicine Section will discuss "The prevention of human tuberculosis of bovine origin," particularly from the view of the Tuberculosis Order. This subject will be introduced by Dr. Savage, County Medical Officer of Health, Somerset, an authority on public health matters, and it is not likely that any veterinary surgeon will deny the importance of our being well represented at that meeting and in the discussion. The same section will discuss "Rabies," another condition very interesting and important to veterinarians. On Thursday the 10th the Conference of Medical Officers of Health will discuss "Tuberculosis" and also "The public milk supply," so that it is very desirable that the veterinary profession should be well represented throughout the week.

To avoid disappointment, the regulation on resolutions should be carefully remembered by all gentlemen who intend availing themselves of attendance at the Congress.

"No Resolution can be proposed at any of the Sections or Conferences, unless sent to the Secretary of the Section or Conference in time for approval and insertion in the Programme for the day on which it is to be proposed."

The Recording Secretary and the Local Secretaries of the Conference of Veterinary Inspectors will be in attendance all the week, and if any gentleman has a difficulty in finding any of these officials, a note may be left for them at the reception room. The officials will be pleased to give any information they can with regard to the Congress.

The social side of the Congress leaves nothing to be desired. It comprises garden parties, a reception, excursions by road, rail and sea, and the beauties of Devon need no advertisement.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### INTRA-PELVIC CRUSHING OF THE MATERNAL INTESTINE DURING PARTURITION.

Dun, of Hösbach, records the case of a Simmenthal cow at her second calving. On April 7 of last year, after feeding as usual during the day, she calved about six in the evening. The calf was delivered in the dorsal position, by the aid of several

men; and during parturition the cow lay upon an incline with her head directed upwards. The membranes came away a few hours later. The next morning (April 8) the cow drank, but refused hay; and, as rumination also seemed imperfect, Dun was called in.

He found the pulse, respirations, and temperature within normal limits. The external temperature of the surfaces of the body and of the horns and ears was regular. Peristalsis and movements of the rumen were somewhat suppressed, but still distinctly recognisable. During the examination, defecation, accompanied by slight straining, took place. Vaginal exploration revealed extensive lacerations of the vaginal mucous membrane, with the formation of pockets. No intra-uterine lesions were to be found. During this exploration the cow passed a tolerable amount of faeces, straining meanwhile.

Dun diagnosed indigestion in consequence of the strain of parturition, and traumatic vaginitis. Treatment consisted in the administration of Tinct. veratri with hydrochloric acid, and the application of Preissnitz bandages to the body.

On April 11th the condition of the cow was much the same. She ate some hay in Dun's presence; but the history was that she had not again defecated. Upon rectal exploration, Dun's arm encountered a powerful peristaltic wave. He was able to remove some dung mingled with mucus, from the rectum. Laparotomy was now proposed, but was refused by the owner. Arecoline veratrin was then given in three doses at intervals of two hours.

On April 12th the cow was still lively, and was taking notice of her surroundings. The pulse numbered 65 and the breathing 18 full respirations to the minute. The rectal temperature was 102.2 F. A clyster removed a tolerably large quantity of mucus, mixed with some particles of food; and at the same time rectal peristalsis could be clearly recognised. The appetite was completely suspended, as were also the movements of the rumen. Nevertheless, there was no evidence of pain upon pressure of the abdomen, and no formation of gas in the rumen. The owner never observed colicky symptoms, or groaning, or any expressions of pain on the part of the animal.

A drastic purgative, consisting of 70 grammes (about 2 oz. 205 grains) of extract of aloes in a mixture with castor oil was now given. That night the cow showed colicky pains, which Dun attributed to the action of the aloes. The next day (the 13th) she showed slight tympany, without noteworthy sensitiveness to pressure upon the abdominal walls. At this time rectal peristalsis was still demonstrable, and mucus continued to be passed. As the purgative had been unavailing, slaughter was decided upon.

Dun could not himself attend the post-mortem, but the butcher brought him a piece of intestine, with the information that the large bowel had been quite empty, and the small one (in front of the piece brought) very full of aliment and fluid. When the cow fell at the moment of slaughter, a very large quantity of the contents of the stomach had escaped by the mouth. The peritoneum had been found quite unaltered.

The piece of intestine brought, at the transition from the jejunum into the ileum, showed a complete closure, caused by "soldering together" of the mucous surfaces.

Dun explains the condition as follows. The cow's position during parturition facilitated the slipping of a portion of intestine into the pelvic cavity. This had taken place, and, during the drawing away of the calf, the portion of intestine had been crushed between the pelvic bones and the calf's body. The traumatism had resulted in closure of the intestine. The faeces which passed upon April 8 had been behind the injured portion at the time of the accident, and, when these were discharged, no more could follow.

Dun regards the case as remarkable because the animal seemed almost unaffected by the severe lesions, and showed scarcely any subjective reactions. One would have thought that in this form of intestinal obstruction the same symptoms as are seen in invagination—such as violent attacks of colic, continuous restlessness, and suspension of rectal peristalsis—would have been observed. All these symptoms were absent. Finally, Dun remarks that the case bears witness to the great resisting powers of the bovine peritoneum.—(*Münchener Tier. Woch.*) W. R. C.

#### CENTRAL VETERINARY SOCIETY.

The Ordinary Monthly Meeting was held at 10, Red Lion Square, W.C., on Thursday, June 5th, Mr. J. W. McIntosh occupying the chair.

The following Fellows signed the Attendance Book:—Prof. J. Macqueen, Messrs. J. B. Buxton, R. Eaglesham, F. J. Taylor, A. E. Willett, G. Gordon, D. Stewart, B. Gorton, R. A. Philp, R. Bennett, H. D. Jones, F. W. Chamberlain, L. Auchterlone, E. L. Stroud, G. H. Livesey, Prof. G. H. Wooldridge, W. Hunting, S. H. Slocock, W. R. Davis, H. Gray, W. Willis, W. S. King and Hugh. A. MacCormack, Hon. Sec.; Visitors, G. O. R. Grey, R. T. Davis and A. K. Nicholas.

On the motion of Mr. Almond, seconded by Mr. Willett, the Minutes of the last meeting were taken as read and confirmed.

The SECRETARY read letters from absent Fellows regretting their inability to be present.

#### MORBID SPECIMENS.

Mr. EAGLESHAM exhibited the front foot of a van horse showing horn tumour or keratoma of the toe. The horse had been under treatment for some time, was rather lame at first but made good improvement after stripping operation over the diseased part. It was likely to recover soundness to be able to do walking work, but meeting with an accident whilst under treatment through getting kicked by another horse had to be destroyed for open hock joint.

He also showed the front foot of another van mare which met with a street accident, a motor wheel passed over the inside of the off front foot crushing the foot badly and necessitating stripping of the wall on the inside. The pedal bone was found to be fractured on the outer wing. There was great lameness and the case being hopeless the mare was destroyed.

He also showed the pedal and navicular bones of the hind foot of a van mare which was destroyed for open navicular bursa, the result of a puncture from a gathered nail and the condition of the bones showed the inflammatory changes that had taken place.

Mr. F. J. TAYLOR showed a specimen of the wall of a large abscess found attached to the bowel of a bloodhound on post mortem. The animal was brought to the infirmary in an emaciated condition, and for a fortnight had most acute diarrhoea, occasionally streaked with blood. The dog gradually became a skeleton and was destroyed. He was tested with tuberculin with negative results. On post mortem a large abscess was found with the bowel passing through the top of the abscess, which was full of thick, white pus. He also showed an interesting specimen of a perforating ulcer of the duodenum in a fox terrier six years old. The first symptoms noticed were occasional sickness after food, and almost persistent catarrhal diarrhoea. There was the typical diagnostic "stomach expression" on the face. At first it was thought the disease might be due to tuberculosis, and the dog was tested on two occasions with tuberculin with negative results. He was destroyed and on post-mortem examination the perforating ulcer of the duodenum was discovered. From what the owner said the dog was occasionally sick and seemed to have a constant desire for food, and after food he would lie before the fire apparently in a contented condition, but as soon as the food was digested, and commenced to pass out of the stomach and over the ulcer, the dog wandered about the room and whined. A definite history if it can be obtained, and proper observations made of the character of the faeces should help us in diagnosing duodenal ulcer which might be relieved by the "short circuit" operation.

Mr. STEWART exhibited the ribs of a mare, twelve years old, which had been hard at work up to two or three months ago. The only thing strange about her was that she had had difficulty in rising for the last two years. She came to the infirmary, and shortly afterwards an enormous swelling appeared on the off side. She was put into slings. The swelling continued to enlarge and tumours appeared just below the vulva on each side of the thigh. They would discharge for a day or two and then dry up. On being destroyed the ribs were found in the condition shown. On post mortem the mesenteric glands were very much enlarged and caseous, and the inguinal gland was also enlarged but not caseous. Tuberculosis was suspected but the mare was not tested.

Mr. BENNETT showed the second and third vertebrae, tremendously enlarged, of a horse which had reacted to tuberculin, and he thought the enlargement was tubercular disease of the bones, although the position of the enlargements on the vertebrae were rather unusual. The first symptom shown before the horse was really ill at all was a slight enlargement of the sub-maxillary lymphatic glands. The horse was apparently strong and able to work at first, but became emaciated; it reacted to the test but worked for some time afterwards. He was not able to make a complete post mortem as the horse was killed when he was on his holidays last year.

He had had two other cases within the last two or three years of tuberculosis in the horse, and in both cases enlargement of the submaxillary gland was a notable feature. In the first case the post mortem revealed a generalised tuberculosis. The first symptom was laryngitis and he did not suspect tuberculosis at all. In the other case the symptoms came on apparently like ordinary strangles, with what he thought was a strangles abscess formed in the throat. The animal died within a fortnight and on post mortem, tubercular lesions were found in the lungs, pleura, spleen and peritoneum. In two of the cases the animals were on a dairy farm, and in the other case the horse was bred on a dairy farm and then sold to a market gardener. The probability was that all the cases were of bovine origin.

The PRESIDENT said at the present time he had a case somewhat similar to the keratoma case. He had cut it out in front and the horse was going sound, but as

the hoof grew down the same thing recurred, and it was only by keeping it cut out that the horse was kept sound.

Replying to the President, Mr. Stewart said there was no lameness at all associated with the condition of the ribs.

Mr. BENNETT, replying to the President, said the movements of the head were very much affected, and there was great difficulty in turning.

#### ELECTION OF FELLOWS.

The following Fellows were ballotted for and unanimously elected: Mr. H. J. Parkin, M.R.C.V.S., of East Ham, and Mr. J. Cahill, M.R.C.V.S., Stockwell.

#### ECZEMA IN THE DOG.

By Mr. F. W. CHAMBERLAIN.—Resumed Discussion.

Mr. HUNTING said at the last meeting one of the speakers appeared to think that the discussion was useless, and nobody knew anything about the disease, and expressed the hope that the discussion would not be published. He himself had to confess at once that he did not know much about eczema; he had observed a few facts, but could not tell what they meant. The cause of the disease nobody seemed to know. Amongst the causes mentioned by Mr. Chamberlain there was no mention of heredity, and so far as he had observed the facts and interpreted them he certainly thought there was reason to believe that the disease was hereditary. Some years ago he had as a client a large breeder of St. Bernards, and nearly all the dogs had eczema after they were a year or two old, even if moved to other places and other surroundings. Certain breeds such as St. Bernard and Aberdeen terriers seemed so be specially predisposed to eczema. In the Aberdeen terrier it generally appeared first upon the back; the skin was moist, the hair erect, and there was a good deal of irritation. Nearly all those dogs were subject to repeated attacks, spring and autumn being the most common time. In some cases the second stage appeared without the first, and sometimes the first stage could be successfully treated.

With regard to the question of contagion, when he had a dog practice himself it very often occurred to him that it was contagious, and yet he did not know that anyone had ever found an organism that could be taken to be the cause of the disease.

He agreed with the author that in the treatment of cases in the dog, feeding was very important. The worst thing was dog biscuits or hydrocarbonaceous food of any kind. His rule of thumb practice was to feed the animal on meat only for a fortnight. For internal treatment he had tried various things, but he did not know that any of them ever did any good. Arsenic he had used by itself, and in some cases the animal recovered—possibly in spite of it. He thought his cases did better with a combination of iron and arsenic. It seemed to him that a real case of eczema was made distinctly worse by any sulphur application externally—that the sulphur irritated the skin. As an ointment, he used white zinc ointment which was immensely improved by the addition of some salicylic acid. The result was a little hard and he added a small quantity of olive oil to it, so that the prescription consisted of zinc ointment, olive oil, and salicylic acid,  $\frac{1}{2}$  a drachm of the acid to 1 oz. of zinc ointment. In conclusion he protested against the suggestion that because people did not know all about the disease they should be debarred from giving their experience and expressing their theories.

Mr. DAVIS agreed with Mr. Chamberlain that the dogs most often found affected were Aberdeen terriers and West Highland terriers. It would seem that Scotch dogs had a certain irritability—a tendency to react

strongly to stimuli, which they perhaps shared with Scotch folk. You know their emblem and their haughty motto that surrounds it, *nemo me impune lacessit*. Eczema appeared to be a dermatitis and inflammation of the skin, and was often divided into three degrees of intensity. First of all there was the mild form with congestion of the vessels of the papillary layer of the skin and an out-pouring of fluid from the vessels, but not sufficient to cause the eruption of vesicles. It was called erythema: measles in man and forms of erysipelas in pigs belonged to it. It was very often accompanied by a good deal of itching. In the second degree there was more acute congestion of papillary vessels and an outpouring of a great deal more fluid, with maceration of the cells of the epidermis, and formation of vesicles. Eczema was in this division. In the third degree there was actual destruction of the epidermis and purulent infiltration of the cutis. Eczema no doubt was a dermatitis, and all these forms were seen in eczema of the dog. Every case of dermatitis produced by fleas or lice or rubbings was not eczema. In eczema there was a tendency for the dermatitis to become chronic, and there was a great variability in the lesions produced, and a great tendency to recurrence. Mr. Chamberlain thought that these three distinguishing features were caused by the presence of a bacterial flora on the skin of the dogs, and would not admit any question of diathesis. He believed Mr. Chamberlain was entirely wrong. There appeared to be something in the constitution of the animal itself—an idiosyncrasy. There were people whose skin would swell if they were bitten by a gnat, and some people could not eat lobsters or other shell fish without becoming covered with a rash. Sometimes the rash followed the distribution of certain cutaneous nerves, which would point to the fact that the nerves might have something to do with the production of eczema. It was not an uncommon thing to find eczema affecting the pastern after a horse had recovered from being unnerved. Predisposition also produced skin eruptions both in human beings and animals when they were suffering from gastric or kidney troubles. There was no doubt that heredity played its part in the production of eczema. Greasy legged mares and stallions mostly begot stock with a tendency to grease. With regard to the symptoms, he agreed with Mr. Chamberlain that the scrotum was a place where a very severe form of eczema was often found: he had seen it followed by purulent orchitis. He also agreed with Mr. Chamberlain that interdigital cysts in the dog were due to eczema. A dog was brought to him very lame on the right foreleg with an interdigital cyst or abscess, and on the other foot he noticed some old, healed cysts, and on examining the foot he found that the skin between the paws was in a condition of inflammation and covered with exudate. The disease commenced as eczema, developed as a cyst between the toes, through going on to produce a cellulitis. In opening the abscess the knife went not only through the epidermis but right through the skin to the subcutis.

Prof. WOOLDRIDGE asked why it did not occur in other parts of the body.

Mr. DAVIS said it was a long way away from the centre of circulation, and that possibly had something to do with it. With regard to diagnosis of eczema, it was necessary to differentiate between it and the effects of parasites—fleas and lice—and mange. He remembered the case of a lady who brought an action against a veterinary surgeon who had diagnosed eczema in her dog when the dog, she asserted, had suffered from mange and had given her scabies. Two eminent members of the veterinary profession went into the witness box and swore that it was an easy thing for a professional man, even clinically, to differentiate between the two things. As a matter of fact it was an extremely difficult thing to



do. Mr. Livesey had said that 80 per cent. of cases of so-called eczema were really cases of mange.

Mr. LIVESEY said he had not said so.

Mr. DAVIS said that was the impression he had obtained at any rate. In his opinion one had ten cases of eczema to one case of mange. Mange was found more in the street cur than dogs that were well cared for. It was also necessary to differentiate between mange and ringworm, and that was not always easy. He had seen cases of ringworm which it was very difficult to tell from eczema. It was also necessary to differentiate between eczema and burns, scalds, and the effect of chemicals. Those very acute eczematous patches might well be taken for burns. He had found the best remedy for treating eczema was preparations of lead, Unguentum plumbi for instance, and another thing of value was calamine and lime water. He agreed with the essayist on the use of greasy applications.

Mr. GRAY thought the term eczema was made to include far too much. There were several stages of so-called eczema, and each stage required a different treatment. There were also certain varieties. Nervous eczema was not rare in the dog and generally attacked the body symmetrically and came on very quickly, and although cured for a time returned again in the same place. In certain parts, such as the face, it seemed impossible to cure it even with caustics or internal treatment. He looked upon eczema as a mechanical condition, the scratching produced the lesions and the lesions became inoculated by the ordinary microbes of the skin. Some of the worst cases were those seen during the hot weather. Veterinary surgeons at the seaside asserted that eczema was commoner at the seaside than it was inland, but he did not think that was true. The fact was that during the fine weather a great number of dogs went to the seaside, and it was at that time that the veterinary surgeons there saw the majority of their cases. Another form of eczema was produced by dogs lying in front of the fire during the winter and getting scorched. He quite agreed with Mr. Hunting that heredity had something to do with it, not hereditary disease but hereditary peculiarity of the skin which predisposed the animal to eczema. It was impossible to cure all forms of eczema with one method of treatment. John Hunter had said that there were some skin diseases which could be cured with oxide of zinc, others with sulphur, some with tar, some with mercury, and some the devil himself could not cure. With those remarks he agreed. In acute eczema there was nothing to beat zinc oxide ointment; he had seen dogs which had been tinkered about with for months cured with one application of zinc ointment. In the acute stage soothing treatment was the best, and there was no remedy to equal zinc oxide ointment, which was used largely by the late Sir Erasmus Wilson; it kept the skin cool and supple and acted as a protective film. In sub-acute eczema zinc ointment and sulphur ointment was a good thing to use. For chronic eczema a slight stimulant such as tar should be used, the ointment being composed of zinc ointment, sulphur ointment, and tar ointment. Chronic eczema of the back he had seen yield to one application of the mixed mercurial, sulphur, zinc, and tar ointments rubbed well in along the back, with none left for the dog to lick off. Eczema of the scrotum in his experience had been made worse by improper treatment, such as the application of iodine or caustics. Treated with lead and opium lotion alone the disease yielded in a few days. It was not always the agent that failed but the lack of skill in employing it. Eczema of the feet was a very troublesome affection, generally accompanied by great pain, and for that he found nothing to equal lead plaster melted and smeared on the feet, which were afterwards bandaged up. He could not agree with Mr. Livesey that the majority of cases of ear affection in the dog were due to parasites, because he thought eczema

played a very large part in ear complaints. It was frequently most difficult to cure, and there was always the probability of its returning. Sometimes it was associated with eczema of the eyelids and chronic keratitis. Interdigital abscess in his experience was very rarely associated with eczema. It was purulent infiltration or suppuration of the areolar tissue under the skin and had all the clinical characteristics of an abscess in any other part of the body. With regard to the differentiation of eczema from mange, it was a very easy matter if the mange was well advanced and had not been treated. There were certain characteristics in mange that were not found in eczema. It gave a dog pleasure to scratch in mange, whereas it caused him a certain amount of pain in eczema. In mange there was reflex scratching movement of one of the hind limbs and extension of the head on the neck—if one scratched or tickled the affected skin. In the cat mange always attacked the head and ears and sometimes neck, to which, in the adult, it confined itself. In the kitten it became generalised. If the head alone was attacked in a dog suffering from skin disease he thought the conclusion could be come to that it was mange. Also the edges of the ears were always affected in mange and the parasites could be found if as had been said the skin had not been treated. With regard to Mr. Livesey's statement that 80 per cent. of the cases of skin disease at the seaside was due to mange, in towns it was just the opposite. Mange was usually found in animals that had been associated together in large kennels or at shows or in a veterinary or boarding establishment, or in dog shops.

Mr. F. J. TAYLOR said he had seen cases of eczema nearly every day of his life for the last twenty years, and had read what most authorities had said about it, but he candidly confessed he did not know much about the cause of the disease. He had never looked upon eczema as a true skin disease but rather as an "external manifestation of an internal catarrh" and he never treated it externally without treating it also internally. For some years he took the temperature of nearly every dog brought to him with eczema and found in the majority of instances a subnormal temperature indicating a digestive catarrh. He had always treated the disease on the lines that it was probably produced by catarrh of the stomach, or some portion of the alimentary canal, and he had given salicylates internally with success. Dorsal or spinal eczema was the most irritable form in the dog. He generally put eczema cases on a raw meat or fish diet, with baked brown bread and salad oil. He believed that eczema was often hereditary. In the early stages it was very difficult to diagnose between eczema and mange, and most difficult to find the parasite. A very important thing in the treatment of eczema was to protect it from the air and moisture. For moist eczema he generally used a preparation of oxide of zinc, calamine, glycerine, spirit, and rose water, and gave salicylate of bismuth and quinine internally, followed in a few days with dry dressings. Oily dressings except in the very dry stages were not indicated in his opinion.

A form of lumbar eczema common to neuter cats, and the troublesome form of eczema of the eyelids (which seemed to be aggravated by the tears) had not been mentioned.

Mr. LIVESEY wished to correct a wrong impression that had been given by his remark as to the 80 per cent. of skin diseases being parasitic mange. He never intended to imply that at all. What he intended to say and had said, though perhaps he had not made it clear, was that 80 per cent. of the cases described to him as eczema by the owners of dogs or by other veterinary surgeons had always proved to be mange. He would go so far as to say that he thought 60 to 70 per cent. of the skin diseases veterinary surgeons had to treat consisted of parasitic mange. Personally he was in grave doubt whether there was such a thing as true eczema in the

dog as seen in human beings. In the previous week he had met a veterinary surgeon who had a very large dog practice and a long experience of eczema, and he asked him if he believed there was such a thing as true eczema in the dog, and that gentleman said he had never seen a case and he did not believe anybody else had.

Mr. CHAMBERLAIN, in reply, said Prof. Wooldridge and Mr. Almond disagreed with the definition, and apparently emphasised that eczema should be classed and dismissed summarily as non-contagious. Admittedly for the most part eczema was non-contagious, but when a disease had been proved to be transmissible by inoculation, was it justifiable to regard it as entirely non-contagious? The disease, too, seemed to spread on an eczematous subject by auto-inoculation. Personally he inclined to the same opinion as that expressed by Mr. Livesey, namely, "The commonest form of so-called acute eczema is where there is acute dermatitis and inflammation of the outer cuticle, with the formation of a large quantity of serum with pus on the outside skin, accompanied by intense pain. This is the worst form we know, and spreads rapidly outwards and is undoubtedly communicable from one dog to another. He certainly thought with Mr. Livesey that this impetiginous form was communicable. Prof. Wooldridge had re-echoed the sentiment that soap was frequently an exciting cause of the dermatitis, not so much the kind of soap, but the fact that the soap was not properly rinsed off. That would probably be the opinion of most. Certainly liquid soaps or the solution of a solid soap as mentioned by Mr. Almond had the advantage of being more easily rinsed off. He was surprised to hear Mr. Livesey disregard the question of soaps. Mr. Livesey had rubbed soft soap on a dog and left it without ill effect, and that was possible on many dogs, but given a dog with an eczematous tendency the dog would probably develop eczema. The question of soap and washing was a very important one in its relation to eczema. He always prohibited weekly washings in a dog subject to the disease. Of course it was not necessary to go to the other extreme, because a filthy, dirty coat was equally provocative. Probably Mr. Livesey had seen hundreds of dogs that were eczematous subjects, that presented an erythematous condition after almost every washing. With regard to the question of eczema of the pad, interdigital cysts, and tar paving, Prof. Wooldridge suggested that he had propounded a paradox in saying that tar paving was a cause of eczema about the feet while at the same time discussing oil of tar as an ingredient of chronic eczema dressings about the body. He failed to see the paradox. There was a vast difference between the crude bitumen of the road and an ointment containing a drachm of oil of tar to the ounce. Prof. Wooldridge also said that the tar paving might get plastered in between the digits, obstruct the sweat glands, and set up irritation. That was precisely what he claimed it did. Mr. Livesey maintained that the sweat glands were not confined to the mouth and between the toes as popularly supposed. Surely, however, they are better developed there and open more freely. If a man took a cycle ride on a hot day on a hard dry road with his dog following him, when the cyclist pulled up for refreshment at a wayside inn, it would be found that the dog left wet pad marks all over the stone floor, sweat excreting from the interdigital glands. The dog, however, would not be sweating about the body. He honestly believed that in his own practice he now had fifty cases of interdigital cyst, so-called, where he only saw one before tarring the roads became the custom. A dog was not often seen with an isolated interdigital cyst nowadays; there were generally two or three at once. Last year he had brought to him an Irish setter with sixteen at one time, and a mongrel retriever with nine. The former could not stand for the time, and the latter was in great discomfort. The powerful effect of tar could be seen in the

way it acted upon the varnish of a trap. Also in districts where tarring was the rule there was a large increase in the number of cases of mud fever in horses. In speaking of tar paving, he did not allude so much to freshly laid stuff, because people carefully kept their dogs off it. In hot weather old tar paving became plastic, but curiously enough he had more cases of interdigital cyst in wet weather.

With regard to treatment, Prof. Wooldridge was of opinion that opium in the treatment of eczema was open to the objection that it diminished all secretions except those of the skin, and where the skin was excessively active, as in moist or weeping eczema, he would not use it. He agreed with Prof. Wooldridge on that. Opium diminished pain, induced sleep, and arrested all secretions except those of the skin, which it prorotated. He would not give opium in acute cases, but only in the more chronic form and to a hypersensitive dog of nervous temperament. Mr. Almond had stated that he used crude kerosene in dressings for even acute eczema. That he himself should have thought was too drastic. In Mr. Almond's opinion the pain and irritation observed were not so much due to eczema as to decomposition of the discharges; but surely the matting of such discharge with the hair, and the traction on the hair roots must have an effect. Mr. Livesey had said that 80 per cent. of cases brought to him by owners and from other veterinary surgeons as eczema were mange. Owners surely did not come with a diagnosis, but awaited Mr. Livesey's. With regard to cases brought to Mr. Livesey from other veterinary surgeons, surely not 80 per cent. were mange cases. Mr. Livesey would agree that occasionally in a case where a dog had been left to scratch and tear himself about it was not always possible to tell without the microscope, and he was afraid that the instrument was not always used when it should be. With regard to peroxide, he would emphasise that the part should be afterwards dried of any froth that had formed, as Mr. Livesey had advised, because he had heard of cases in children where ear abscess had been treated with peroxide injections, and the froth resulting from the combination of peroxide and pus had sufficed to set up dermatitis of the face. With regard to worms not being causal, it had occurred to him that tape worms caused no skin irritation, but ascarides did. Per contra one generally saw eczema in a dog over two years of age when ascarides were conspicuous by their absence. Prof. Macqueen did not think the vesicle a constant lesion. He himself was sure it was not. In eczema there might be no vesicles at all and no outward catarrh, but there might be catarrh in the deeper layers of the skin, under the horny layers of the epidermis. As Prof. Macqueen had said, eczema was often associated with neurosis. The influence of nerve shock or prolonged mental strain, for example, chill or pregnancy, apparently might induce it. There was undoubtedly relationship between eczema and certain functional neuroses, as for instance asthma, according to medical authorities. He thought eczema in a pregnant bitch often came under that category. Prof. Macqueen deprecated the application of dressings containing fat. No doubt there was a reason for that theoretically, but in practice his own experience coincided with that of Mr. Gray: ointments seemed to him to be more quickly efficacious. Both Mr. Hunting and Mr. Davis referred to heredity. He had thought it was mentioned in the paper, but the wording did not convey quite that impression. What he did say was "There would appear to be some unknown quantity beyond this—a pathological *x*, which may either be some invisible source of irritation or some constitutional peculiarity, susceptibility, or diathesis." Mr. Hunting had mentioned that eczema was very common in the St. Bernard; he himself had often seen it, but it appeared to him not to run such a chronic course in the St. Bernard as in the Aber-



deen There were more periodical acute attacks. Mr. Hunting had used a prescription similar to the first mentioned in the paper *plus* salicylic acid. It would be noted that the prescription mentioned in the paper contained a combination of water and a fatty base, and by that means there was an evaporation producing a cooling effect. Mr. Davis had referred to the fact that some people could not eat shell fish without getting a skin eruption, and he believed there was such a thing as a formation of acetones in the blood, but it was too abstruse a subject to discuss here. Mr. Davis had also noted the severity of scrotal eczema and even purulent orchitis and death, but he himself had never seen such severe cases in that position. With regard to differential diagnosis, he agreed with Mr. Davis that it was impossible at times to distinguish traumatic dermatitis from eczema on first inspection. It was only when

there was a history of recurrence that one would say it was eczema. He could not agree with Mr. Gray's dictum that the head of the cat afforded a predilection seat for mange. Certainly the region of the head generally is affected but isn't the fact that a cat relies on licking and rubbing rather than scratching the explanation of such infection.

He thought many cases in cats of bareness of skin from ear to eye consisted in an extension of parasitic otorrhoea—an acariasis but not a true mange.

On the motion of Prof. Wooldridge, a hearty vote of thanks was accorded to Mr. Chamberlain for his paper.

On the motion of Mr. Almond, a vote of thanks was accorded to the Fellows who exhibited Morbid Specimens, and the meeting terminated.

HUGH A. MACCORMACK, Hon. Sec.

#### DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.		Foot-and-Mouth Disease.		Glanders.		Parasitic Mange.	Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.			Out-breaks	Slaughtered.*
IRELAND. Week ended June 14	...	...	...	...	...	...	Outbreaks 2	4	4	25
Corresponding Week in	1912 ...	...	...	...	...	...	2	1	4	27
	1911 ...	...	...	...	...	...	1	...	1	79
	1910 ...	...	...	...	...	...	2	3	3	84
Total for 24 weeks, 1913	...	...	...	...	...	...	90	295	79	474
Corresponding period in	1912 ...	2	2	...	...	...	41	253	128	1202
	1911 ...	5	6	...	...	2	41	240	52	910
	1910 ...	4	7	...	...	1	36	332	52	1239

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 16, 1913

NOTE—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

#### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting was held on Thursday, June 5, at the Grand Hotel, Manchester, the President, G. H. Locke, Esq., in the chair. The attendance included Messrs. Taylor, Darwell, Mattinson, Holburn, Lawson, Stent, Wolstenholme, Sumner, Brittlebank, Noël Pillers, Spruell, Heyes, Clarkson, Abson, Secker Smith, Share-Jones, Ferguson, Wilson, Whitehead, McKinna, Woods, and Richardson. Visitors: Messrs. Mason and Bowes.

Apologies for absence were received from Messrs. Carter, Holroyd, Lloyd, and Annett.

*Minutes.* The minutes of the last meeting were taken as read, on proposition of Mr. Taylor, seconded by Mr. Hughes.

The PRESIDENT said that before proceeding with the business of the meeting, there was an unpleasant duty to perform. As most of the members would know they had lost an old and highly respected member through the death of Mr. Faulkner. Joining the Association in 1877, Mr. Faulkner had occupied all the various offices, and had always worked hard in the interests of the Association and the profession generally. The officers of the Association had attended the funeral and had placed a wreath on the grave. He asked the members to formally move a vote of condolence by rising in their

places. The vote was passed in silence, all present standing.

The SECRETARY submitted a letter which he had received from Miss Faulkner thanking the Association for their sympathy in her bereavement by the death of her brother.

*Election of Council.* The PRESIDENT informed the meeting that at the recent election of Council of the Royal College, Lancashire had been successful in gaining a seat, Mr. Packman having been elected. He thanked the other Societies who had assisted in the matter and congratulated Mr. Packman on his success.

*New Members.* Mr. J. RICHARDSON, M.R.C.V.S., Rawtenstall, proposed by Mr. Giblin, seconded by Mr. Brittlebank; and Mr. W. E. S. RICHMOND, M.R.C.V.S., Bury, proposed by Mr. Brittlebank, seconded by Mr. Stent, were unanimously elected members of the Association.

*Nominations.* The following gentlemen were nominated for membership by Mr. Brittlebank: Messrs. J. T. ABELL, Derby; E. J. BURNDRED, Blackburn; A. M. MUNRO, Board of Agriculture; and J. HUGHES, Llanfair, Welshpool.

*Alteration of Rules.* The SECRETARY reminded the members that at the meeting in April he gave notice of alteration of rule, on a recommendation of their Council, to meet a point that was raised by Mr. Noël Pillers. The point was partly met by the existing rule 6, and,

by the addition of a short clause, would fully meet the case. He now moved that rule 6 read as follows:—"Members of any other recognised Veterinary Medical Association, *not being in arrears to such Association*, desirous of becoming members of this Society, shall be admitted on payment of only ten shillings annual subscription, such gentlemen to be duly nominated and elected according to rule 5." Mr. Taylor seconded. Carried.

*Election of Life Governor to the National Veterinary Benevolent and Mutual Defence Society.* Owing to the decease of Mr. Faulkner, a vacancy has occurred in the representation of the Lancashire V.M.A. Mr. Clarkson moved, and Mr. Darwell seconded, that the matter be referred to the Council for consideration and report.

*Payment of Subscriptions.* The TREASURER (Mr. Stent) made an appeal to all members for prompt payment of their subscriptions.

THE SPECIAL TRAINING OF VETERINARY SURGEONS IN MEAT INSPECTION.—By Mr. A. HOLBURN, M.R.C.V.S.  
[Read at the previous meeting].

#### DISCUSSION.

Mr. NOËL PILLERS explained that he had been called upon suddenly to undertake the task, and was therefore unprepared. He thought the heading of the paper and its contents were entirely opposed to each other. He recalled that several papers regarding veterinary education had been written, and he mentioned those of Professors Boyce, Bradley, Woodruff, and General Smith. Now they had one from Mr. Holburn, who might be classed as a general practitioner, and all tended to indicate that something was required in this matter of education.

It was perhaps unfortunate that the consideration of this paper had been delayed, for they might be talking over ground already decided upon. At the time that Mr. Holburn's paper appeared in print there was also a report of the Royal College announcing that the Syllabus Committee had considered the educational curriculum and put forward a lot of suggestions which they hoped to publish in July. In addition there was the Fellowship Committee's report in regard to a Diploma in Veterinary Public Health.

Mentioning the preliminary examination, he thought there was no doubt that some of the subjects which were taught under Class A could be included in it, such as Chemistry, Physics, Zoology, and Botany, and he was inclined to agree that the standard should not be lowered.

As to why money was not left to them as to R.S.P.C.A. he thought this could not be hoped for, and in fact they should not look to this source but to Government and to authorities in a position to subsidize educational bodies. The Association mentioned got its funds on sentimental grounds.

He was interested in the list of members of the various sections of veterinary callings given by Mr. Holburn, and noted that there were only 34 members of the Animals Division of the Board of Agriculture, so that only two or three would be wanted to replace any deficiencies caused by retirement or death. It was surprising that the Board of Agriculture had so much to say in the enquiry into Veterinary Public Services. It is recognised that there are always two laymen there to each veterinary surgeon in that Department.

He agreed with the remarks about clinical instruction and its importance, but thought that if there was a good recognised text book, time could be saved and devoted to clinical study instead of dictation. In medicine, for instance, there were five colleges and five lecturers continually doing the same work. The same applies to surgery and to materia medica. Look at questions of stable

management and hygiene; it is difficult to say where one begins and the other ends. Zootechnics is as important subject in continental schools.

With regard to meat inspection he could not say much. Probably Manchester occupied a very high position in respect to this as compared with any other town.

As to examiners and examinations, he could not see why they must only have external examiners. The only excuse put forward was that one college would try to pass more students than another, which means that one is likely to be dishonest to the disadvantage of the other. The examination should be very thorough, and should be oral, practical, and written. If it were possible to have a practical test, say diagnosing a case, inspecting meat or making a post-mortem examination of a guinea-pig dead of a bacterial disease, that would be a step in the right direction. The value of the post-graduate education has become great because it is essentially practical, but he could not understand how the Board of Agriculture's Committee on Foot-and-Mouth Disease could think that the diagnosis of that disease could be learnt in such classes.

They should send men to the Council who would vote for such matters, and this could be done by means of the new National formulating a programme and then voting for men who would support it, instead of sending representatives because they were jolly good fellows.

Mr. WOLSTENHOLME thought their profession was too self-contained, and wanted shaking up and more light diffusing amongst the profession as such. They did not come into contact with the other professions sufficiently, and in a sense did not get the support of public opinion.

He was surprised at the idea that they should do away with lectures or lecturers in the subjects of medicine and surgery and stick to some particular text book. He had looked at most of the text books of their profession, but could never gather as much from them as he could from a teacher or a specimen. He failed to see how young men were to be trained sufficiently in either medicine or surgery unless it was done *viva voce*.

The question of internal examiners has always been affected by the pecuniary needs of the various teaching schools. Such schools have practically been in competition one with the other for obtaining and passing students, and the college which had the best record was the one a father was most likely to send his son to. Speaking ethically he believed it to be an ideal way of examining students that there should be internal as well as external examiners.

Asking the question, "What necessity is there for a newly graduated surgeon to take up a post graduate course?" he replied that if competent there was no necessity. Other professions, however, adopted this attitude. In the medical profession for instance a man desirous of becoming a medical officer of health had to undergo special training and pass a particular examination. Again, in some of the colonies, they required men to have a diploma in tropical diseases, and medical men were submitting themselves to a new course of training to qualify for these positions. A post-graduate course was also very helpful to men who had been away from college a number of years.

Prof. Share-Jones said they were never tired of discussing this subject of Veterinary Education in its present state. With reference to the report of the Departmental Committee, this was a very vital report so far as the profession was concerned. A committee of independent investigators who took evidence from various sources gave the profession a severe rap over the knuckles, a rap which came from no other quarter than Manchester. No one would suggest that the gentleman who was the cause of this was in any way biased, or that his statements were not given in the best interests

of the profession with which he had a long acquaintance. He referred to Prof. Delépine, upon whose evidence the Committee came to the conclusion, in words that leave no doubt in the minds of anyone, that the scientific training of men entering their profession in the past had not been such as produced satisfactory results. It was not many months ago that he personally expressed a decided opinion on this point in Manchester in the face of considerable opposition. This opinion had been somewhat definitely and independently confirmed since. If they were to keep themselves in the position of a scientific profession then their members must have equal scientific training to that demanded of men entering other professions. The point would be raised as to where these science subjects should be taken. He saw no reason why they should not be taken in any University or College where adequate facilities for affording a sound scientific groundwork were available.

Referring to the 34 qualified Veterinary Surgeons at the Board of Agriculture, he said he did not know how many unqualified men there are but he knew they existed. He also thought that there were more whole-time Veterinary Surgeons employed by the Board of Agriculture in Ireland than by the Board of Agriculture in London. The attitude of the Board of Agriculture in Ireland towards the work of the profession was distinctly encouraging. He hoped that ere long much greater use of the profession would be made by the Board in England.

In regard to Meat Inspection, he said that in all the countries in Europe, including Spain and Roumania, there is a regulated system of Meat Inspection, the conspicuous exceptions being Great Britain and Ireland, and alongside came Turkey. He knew he was speaking in a city where justice is done to the subject, but what was the use of Manchester doing this work when the surrounding towns and districts were not touching it? He was Chairman of the Health Committee of a large public Authority which was investigating the matter in its own area, and they were trying to frame a system of Meat Inspection for that area. But it is obvious that a system is needed which would be generally applied throughout the country, and it appeared to him that sufficient pressure was not brought to bear upon Government and Health Authorities in regard to this big question. Nobody was more fitted to move in this direction than the Veterinary profession, and it was for us to take firm concerted action.

He believed in Internal Examiners. Expert educationalists had thrashed this matter out and had decided that the best course was to have Internal and External Examiners. It was fallacious and somewhat conceited on our part if we considered ourselves right on this question and practically every other body of educationalists wrong.

Mr. WHITEHEAD was chiefly interested in the references to meat inspection. In most of the schools meat inspection was taught by the lecturer in pathology and not by a practical meat inspector. Thus the scientific side was treated rather than the practical side. Then again, in connection with the post-graduate course, men are shown meat which has been condemned, but personally he desired to see what was being passed.

Mr. BRITTLEBANK wished to thank Mr. Holburn for the excellent manner in which the material had been placed before them. He had drawn one's attention to certain phases of work which caused them, as the Frenchman said, furiously to think! The general question of education is one which is receiving some considerable attention.

Looking at the matter from the point of view one ought to take of it, the period of training at college should be principally directed to teach a student to think scientifically and to learn scientific methods. They could not all at once make an absolutely practical

man. The whole question was a difficult proposition to tackle. Various propositions had been before the profession, one, the dropping of chemistry from the first year's curriculum, the idea being that he should get his training in chemistry during the last year at school, but he failed to see how any boy, say of 15 or 16 years of age, is going to be taught chemistry in a purely scholastic institution in a manner that was of the slightest use to him as a veterinary surgeon. He did not follow the train of thought which makes it possible to exclude chemistry from the curriculum. Personally he thought education in chemistry to be lacking and requiring extension. As a matter of fact it was not possible, in his opinion, to extend the curriculum very much, nor did he think it required any serious alteration. It was more the methods of teaching than anything else which he thought might be altered. In the early period of studentship, learning such a highly technical subject as chemistry, the mind is not in the condition to retain the necessary amount of knowledge for the later years and especially in regard to this subject the mind required refreshing, and the knowledge extending at a later period. Many people in the profession seem to take the view that post-graduate education is not necessary. He agreed that the training of a veterinary surgeon should not be insufficient, but to those who would admit it—and it was not easy to admit one's inefficiency or lack of training—many of them would confess to having found considerable necessity for post-graduate education. The Royal College itself has for years admitted the principle when they established the Fellowship degree. He might be told that that was for financial reasons. It is surely a paltry reason for a scientific profession to give. Many like himself who are engaged in State branches of work knew very well what the requirements are, and that the Fellowship did not supply their special requirements and so they had to go elsewhere. They had to go cap in hand to the Universities and ask them to give facilities for further education by post-graduate work which included more advanced chemistry and advanced bacteriology. Personally he was ready to admit at all times that the post-graduate training which he had been fortunate enough to obtain had been of the greatest value to him in the particular work which it was his lot to carry out. His preliminary training no doubt fitted him for a certain amount of practical work, but after a short period he found there were many details omitted in the training which seemed essentially to efficiency. Take meat inspection for instance. This, in his student days, was a complete farce. They were shown a considerable amount of diseased meat and also saw material passed, but in all cases the classes were too big to learn anything. It had often occurred to him that an extension of the system adopted in the final years course of practical teaching, namely the division of students into dispensers, dressers, and visitors, might very usefully be copied with advantage for the teaching of meat inspection. He was perfectly certain that if the authorities in those towns where veterinary schools were situated were approached in a proper manner, that facilities would be given for attaching batches of students for stipulated periods to abattoirs and markets where they could accompany the Inspector to see his daily work, and not confine their attention merely to examining diseased meat which had already been condemned. It was quite as important that they should learn to assess meat which was fit for food. He was glad to see that the Royal College has recognised that there is a branch of the profession that want a post-graduate diploma as apart from the Fellowship diploma.

It is admitted that there are other branches opening to the profession which will form a very considerable portion of the work of the men coming into the profession in the future. So far as finances are concerned

he did not know what the return would be, but he did not think that the question of finances ought to stand in the way of their educational progress. If they could not be self-supporting the Government should be approached for grants. He was delighted to see Mr. Holburn present.

Mr. HOLBURN, in reply, said that when taking a general survey he did not know that the Royal College was discussing the matter so closely until they issued the report, and he had intended chiefly to support those men who had written on the subject. They should realise that the Council is their diploma-granting body, and the members of Council should try to meet the wishes of the profession generally. A corporation in making new bye-laws for the better government of a town do not ask the landed proprietor whether he can afford to make alterations, but they make the bye-laws and enforce them. If the needs of the profession are such that alterations are necessary then the Council should decide what ought to be done.

Meat inspection was essentially a practical subject, and could not be taught outside an abattoir or large slaughtering establishment. Meat inspection is part of pathology, and there was also bacteriology and even chemistry to be learned. He agreed with Mr. Brittlebank that it would be possible to arrange for students in small batches to accompany an inspector.

Mr. TAYLOR said they could not allow Mr. Holburn to depart without thanking him for his kindness in preparing the paper, and he moved that their best thanks be given. Mr. Hughes seconded, and it was heartily carried.

*Pathological Specimen.* Mr. NOËL PILLERS submitted a specimen of ascaris suum in a pig which caused impaction of the small bowel.

Mr. NOËL PILLERS, in reply to Mr. Brittlebank: The ordinary *habitat* is in the first few feet of the small bowel.

A vote of thanks to the President closed the meeting.  
J. W. BRITTLEBANK, Hon. Sec.

#### LINCOLNSHIRE AND DISTRICT VETERINARY MEDICAL ASSOCIATION.

A meeting was held at the "Angel" hotel, Peterborough, on Thursday, June 12. Mr. C. W. Townsend, F.R.C.V.S., the President, occupied the chair, and there were also present: Messrs. W. W. Grasby, Daventry; and T. Holmes, Bourne (Vice-Presidents); T. B. Bindloss, Long Sutton; F. L. Gooch, Stamford; T. Hicks, Hon. Sec., Sleaford; A. Johns, Kimbolton; R. W. Knowles, Wisbech; G. Lockwood, J. Mackinder, Peterborough; H. H. Nichols, Oundle; J. H. Poles, Whittlesea; W. K. Townson, Market Deeping; H. Westgate, Peterborough; H. Lennox, Crowland. Visitor: Mr. E. C. Lloyd, Peterborough.

The minutes of the last meeting were signed.

Letters of apology for absence were read from Messrs. C. Hartley, A. C. Comerford, A. D. Lalor, H. H. Truman, G. B. Dickinson, B. A. Searby, Theo. C. Toope, and S. G. Masterman.

The SECRETARY mentioned that the membership would probably be increased if the day of meeting could be changed to suit different districts, and on the motion of Mr. Gooch, seconded by Mr. Westgate, it was decided to discuss the matter at the Lincoln meeting on the second Thursday in October.

#### INSURANCE COMPANIES FEES.

The HON. SEC. read a letter from Mr. Theo. C. Toope, of the South Eastern Association, with regard to the fees paid by insurance companies for veterinary examinations.

The PRESIDENT said the matter was brought up at a meeting of the Southern Branch of the National at which he attended in March last. There was no doubt they were underpaid by the insurance companies; he said that Mr. McIntosh, speaking at the meeting, said: "All veterinary surgeons were agreed that the present scale of fees was too low, but, on the other hand, he thought the scale now suggested was too high. At the present time the profession was receiving between £20,000 to £30,000 a year from the insurance companies, amounting to £4 to £5 per head. To expect a fee of 7/6 for an animal worth £20 to £30, when the premium was 15/- to 18/-, with an allowance for mileage, was unreasonable." At that meeting it was decided to appoint a deputation to interview the managing directors of three or four insurance companies, and they would report the result in due course.

It was decided to leave the matter open until the deputation had reported.

#### THE INTERNATIONAL CONGRESS.

A letter was read from the Royal Sanitary Institute asking for a delegate to be appointed to the annual conference at Exeter in July, but in view of the claim of the International Congress in London next year, it was agreed that no delegate should go to Exeter.

The PRESIDENT thought the Lincolnshire Association should not be behind-hand in supporting the International Congress. It was the first time it had been held in England, and when they had gone abroad they had been very hospitably received. Several members had already signified their intention of subscribing, and Mr. Gooch would be glad to receive subscriptions from others who had not yet subscribed.

Mr. GOOCH said the cost of the Congress would be £3,500. He produced the names of subscribing members, and proposed that the Secretary issue a circular, with a stamped directed envelope for reply, asking the other members to say definitely whether they were agreeable to subscribe or not.

Mr. WESTGATE seconded, and it was carried.

MAMMITS OR MASTITIS IN COWS.—By Mr. GEO. LOCKWOOD, F.R.C.V.S. [This appeared in our last issue].

#### DISCUSSION.

The PRESIDENT said they were all much indebted to Mr. Lockwood for giving them such an interesting paper upon this important subject. He did not think now the Tuberculosis Order was in force that he could have chosen a more suitable and appropriate subject. They had already seen Mr. Lockwood in the posts of President and Secretary, both of which he had ably filled, and he had that day been equally successful as an essayist. Mastitis was a very extensive subject and they could not do justice to it in the short time they had for discussion, but they would agree that on several points they had all learned something from the essayist. He must confess he himself had done so. It was news to him that mastitis was most common in cows between five and six years of age. He had not mentioned a drug very commonly used in the treatment of mastitis, and that was belladonna, for relieving pain, both externally and internally. It was a matter of opinion as to whether overstocking caused mastitis or not. He thought the worst form of mastitis was the gangrenous, at any rate it was the most fatal. The necrosis bacillus was, he believed, responsible for it, for there was always a peculiar smell attached to the gangrenous form. He had not had much experience of this contagious form of mastitis, but probably other members had.

Mr. KNOWLES said he was of opinion that retention of milk was a cause of mastitis, especially if the retention was due to an impervious duct. He thought it might be due to non-milking, but where it was due to an impervious duct it was seldom the cause of

mastitis. (Hear, hear). He had had a case of mastitis in four quarters and could not get milk out of any of them. He tried passing a tube but without any effect. That cow gave no further trouble. As to the first symptoms of mastitis, he thought the milk suffered both in quantity and quality. With regard to the constitutional symptoms he thought high temperature was coincident with udder trouble. He had no faith in injections; he usually injected a solution of boracic acid, but not with very good results. As to tubercular mastitis he was with the essayist in saying it was only the secondary manifestation of a rather general trouble. He had a case in the market a month ago, just after the Order started. It was in the fat stock market. He saw the udder was wrong. She did not look particularly wasted, but had a nasty cough. He found her udder indurated, more especially in the hind quarters. He saw the owner and took the cow to his (Mr. Knowles') stables. They could not put her through the process of examination owing to the absence of the Clerk of the Committee, and so she was a week in his stables. She did not eat much, she coughed, did not waste much, showed every sign of tuberculosis. The udder had not wasted. He added his thanks to Mr. Lockwood for his valuable paper.

Mr. GRASBY: Did you take any post-mortem scrapings from the udder?

Mr. KNOWLES: No: I did not think it ordinary mastitis. It was badly tuberculous.

Mr. NICHOLS: Had she any milk about her?

Mr. KNOWLES: No, she was a drape.

Mr. GRASBY said Mr. Lockwood did not mention as a cause of mastitis the retention of the foetal membranes. Where cows retained the foetal membranes he thought the udder might become affected by some of the discharges becoming attached to the tail and infecting the udder. He thought he had suggested some fatty preparation to use in the case of mammitis. He himself always thought that to apply any grease to the affected udder was a bad principle, as to gangrenous udder he thought it occurred just after calving. He had not noticed the spots Mr. Lockwood mentioned in the early stages; that was very useful to know. To use a tube in mammitis he thought a very bad thing. He had used a very mild solution of boracic, but never chinosol. He advised that cows should not be milked on the floor when suffering from mastitis in any form. As to contagious mastitis he had an outbreak in one of the wet summers—1880 or 1881—and that occurred in the animals described as drapes. The treatment adopted was to amputate the teat. They suffered great pain and if it left the udder very hard we used sulphuric acid and lard, one to 8, and it dried the quarters up very much.

Mr. LOCKWOOD: Did it affect the skin?

Mr. GRASBY: No, it only caused a blister. It was common treatment in the Boston district some years ago.

Mr. HOLMES: It is used now in Lincolnshire.

Mr. GRASBY: We used to paste it on with pieces of hard wood and it seemed an effectual remedy.

Mr. KNOWLES: Did the end justify the means?

Mr. GRASBY: It was adopted by a man well-known in the profession, both by he and his father.

Mr. HOLMES: I have seen it done in hundreds of cases of drapes.

Mr. GRASBY: Yes, it is the custom now in Northamptonshire with dry cows. We have had many cases in drapes.

Mr. NICHOLS: Do you call it a stimulant?

Mr. GRASBY: No, an absorbent.

Mr. NICHOLS: Do you call it good treatment?

Mr. GRASBY: It may be severe, but it is effective.

The PRESIDENT: Do the owners object?

Mr. GRASBY: Not if you do it before them; if you don't they will. As to giving them salines, you must

often fall back on stimulants. You may keep on salines until they get in a very low state and won't eat anything.

Mr. HOLMES said Mr. Lockwood did not mention cow pox as a cause of mammitis. He found many cases due to this affection. There was a frequency of mastitis in drapes in the three summer months—June, July, and August—a very bad form probably due to a bacterial invasion. He always injected chinosol, three grains to 1 ounce. He also administered potassium iodide and Biniodide of mercury, in conjunction with a stimulant internally.

Mr. HICKS asked if Mr. Lockwood thought that the inflammation of the udder commonly seen in a cow after milk fever arose from the system or from the teat trouble. He read an article in *The Record* in which a gentleman asked if anyone had any trouble after the use of oxygen. He was wondering whether, if so, it was due to the toxins left in the colostrum or something of that sort.

Mr. LENNOX: What is the condition of the udder that produces red milk without any apparent disease of the udder?

Mr. NICHOLS: After making an injection how do you draw it out again?

Mr. HOLMES: Leave it in.

Mr. GOOCH: For 15 minutes.

Mr. NICHOLS: How do you draw it out again?

Mr. LOCKWOOD: With the milk.

The PRESIDENT: There is an instrument with a double tube for it which acts as a syphon.

A MEMBER: It is no use; I have tried it.

Mr. LOCKWOOD, in replying on the discussion, said belladonna was a very useful external application; he did not know if it would be beneficial for internal use as well. He generally relied on a little opium, belladonna might be a little better perhaps. As to the President's question, whether mastitis might be caused by over-stocking, in his opinion it was due to decomposition changes occurring in the milk caused by retention of the milk through over-stocking. Mr. Knowles might have noticed that he said that in the phlegmonous form of mastitis there was very little change in the milk. He was glad to hear that he agreed as to the bad results of infection—personally he did not think he should try it again. As to Mr. Grasby's remarks, he (the speaker) did not mention retention of the afterbirth which he must confess he had not, but he thought it was a cause; he had a case at the present time he believed entirely due to that. The farmers themselves seemed to think the infection came from the membranes into the udder. He did not think there was any objection to the use of anti-septic ointments.

Mr. GRASBY said when he used grease he always had it washed off at once.

Mr. LOCKWOOD, continuing, said he agreed with Mr. Grasby that gangrenous mastitis was generally seen after calving. He hoped that gentleman did not think he recommended the use of syphons in cases of mastitis, but that was not so. In answer to Mr. Holmes, cow pox he thought was not a common cause of mammitis, for cow pox often went through its course without any mastitis following. He did not think he had seen one case in the Peterborough district. With regard to the use of salines, he did not mean to keep on with purgative doses, but to give them a comparatively small dose every other day mixed with quinine. He recommended it more as a laxative. They all knew the varying forms of mastitis were due to the various causes of infection from without. With Mr. Hicks he believed that mastitis after milk fever was due to infection. In reply to Mr. Lennox, red milk was due to a leakage of blood from some of the blood capillaries getting mixed with the milk. Of course the only way to use injections was to draw it out again with the milk, though it was a



tedious business. He did not believe in the use of the sphygm at all. (Applause).

Mr. GOOCH proposed a hearty vote of thanks to Mr. Lockwood, expressing the hope that he would allow his Paper to be published.

Mr. GRASBY, in seconding, said that he had listened to the Paper with great pleasure, as he was sure they all had.

The vote was carried by acclamation.

Thanks were accorded to the President, on the motion of Mr. Gooch, seconded by Mr. Lockwood and Mr. Townsend, in reply, said that he hoped there would be as good an attendance at their next meeting to be held at Lincoln in Oct. next as they had had that day.

T. HICKS, Hon. Sec.

### Action for Veterinary Fees— Gloucester Corporation Sued.

James Yule Bogue, veterinary surgeon, Southgate Street, Gloucester, brought an action against the Gloucester Corporation for £50 8s. professional fees for inspections at the Gloucester Cattle Market. Mr. Lowry Porter (instructed by Messrs. Wellington and Clifford), appeared for plaintiff, and Mr. Wethered (instructed by the Town Clerk) for the defendants.

Mr. Porter said he thought the question for his Honour would be found to be entirely one as to the rate of remuneration, and Mr. Wethered agreed. Mr. Porter, continuing, said plaintiff contended that the fees he charged—£2 2s. for each attendance—were those approved by the National Veterinary Association. Mr. Bogue's appointment was at the time of the outbreak of foot and mouth disease last year, the appointment having been made on July 5th, and terminated on September 25th. Owing to the outbreak of foot and mouth disease it was decided that cattle should only be admitted to the market by two gates, at each of which a veterinary surgeon should be stationed to examine all animals admitted. Mr. Holtham was the Corporation's permanent veterinary surgeon, and it was necessary to appoint someone else to be stationed at the second gate. The Town Clerk wrote asking Mr. Weighill, who used to attend to the shoeing and vetting of some of the Corporation horses, if he would undertake the inspection. Mr. Weighill replied that he had sold his practice to Mr. Bogue, who would be willing to undertake the work, and Mr. Bogue was accordingly appointed, but no preliminary negotiations took place in regard to fees. Plaintiff attended on Mondays and Saturdays each week, the total number of visits having been 24. When his appointment was terminated, Alderman Braine, Chairman of the Markets Committee of the Corporation, asked plaintiff to see him before submitting his bill, and he had an interview with Mr. Braine in the presence of Dr. Bibby. Plaintiff told Mr. Braine what he proposed to charge, and Mr. Braine seemed to consider it rather high, though plaintiff pointed out the valuable time the duties swallowed up, and that the fees were such as were approved by the National Veterinary Association, an Association which embraced more than one-half of the veterinary surgeons in the kingdom. Plaintiff submitted his bill on October 10th, but received no reply until January 17th, when the Town Clerk wrote that the Markets Committee thought there must be some mistake in the bill sent in, and that they had not anticipated that his charge would be more than that of Mr. Holtham, the permanent inspector, who was paid 10s. 6d. a visit. Plaintiff's contention was that Mr. Holtham was a permanent official, who had held the position of Corporation inspector for 30 years, and was therefore on an entirely different footing to plaintiff, whose appointment was only temporary. Mr. Holtham had to take the rough with the smooth, but plaintiff

only came in for the exceptionally heavy work. He had an interview with the Town Clerk, and an attempt was made to fix up the matter by arbitration, but no agreement could be arrived at as to the terms of reference.

Plaintiff supported his counsel's statement. He said he was a M.R.C.V.S. and a member of the National Veterinary Association. With regard to the inspection in question he had nothing to gain by it, and everything to lose by it, because his reputation was at stake, and the duties took up his most valuable time on the two most important days of the week—being market days. He always went to the market at 8 a.m., and remained on duty for four or five hours. He considered two guineas to be a very reasonable fee, and as a matter of fact he lost more than that by attending. As succeeding Mr. Weighill he continued to act for the Streets Committee of the Corporation in shoeing and vetting half the Corporation's horses, for which he was paid about £50 a year; but, in May of this year, while he was corresponding with the Town Clerk in regard to the market inspection charges, he received a letter stating that Mr. J. R. A. Jones had been appointed to succeed Mr. Weighill in shoeing and vetting the horses.

Cross-examined: In his first letter the Town Clerk asked him to consult Mr. Holtham in regard to the work of inspection, but witness did not understand that to mean that he had to discuss fees with him. He did not know what fees were paid for similar duties in other markets in this part of the country, but in Northumberland two guineas were paid for each inspection which lasted over four hours.

Councillor J. R. Bibby stated that he went with plaintiff when he had the interview with Mr. Braine in October. Mr. Braine at first demurred at the proposed charge, but after Mr. Bogue had explained why he made that charge, he was quite sure Mr. Braine no longer demurred. He (witness) thought plaintiff's was a most reasonable charge. Lawyers and doctors would probably have charged more. (Laughter).

Cross-examined: He did not think Mr. Braine was under the impression at the close of the interview that plaintiff's charge was two guineas a week and not two guineas a day.

Theodore Charles Toope, M.R.C.V.S., of Dover, Secretary of the Southern Branch of the National Veterinary Association, Vice-President of the National Society of Veterinary Inspectors, and Secretary and Treasurer of the South-Eastern Veterinary Society, gave it as his opinion that under the circumstances plaintiff's charge was a very reasonable one. In cross-examination counsel took witness through a list of fees paid in various centres issued by the Committee of the Veterinary Association, but witness said these related to the regular veterinary inspections and not to special work such as had been done in this case. Northumberland was one of the best paying places, but some revision had lately been there. He could not quote a parallel case to plaintiff's.

James Blakeway, M.R.C.V.S., Stourbridge, a cousin of the Town Clerk, stated that he considered plaintiff's a fair charge. He did not think there could be any comparison between fees for permanent employment and those for a special inspection such as that undertaken by plaintiff. He himself would not have undertaken the work for the money. It took up the best part of a veterinary surgeon's day.

By his Honour: He questioned whether many veterinary surgeons at the present day had seen a case of foot and mouth disease, and in the early stages such as the disease would be in when cattle were being admitted to the market, it would be most difficult to detect. He, himself, would not have liked to be responsible for keeping the disease out of the market as Mr. Bogue was.

## DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.				Foot-and-Mouth Disease.		Glanders † (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever	
	Outbreaks		Animals		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Out-breaks	Slaughtered.
	Con-firm'd	Re-ported	Con-firm'd	Re-ported									
U. K. BRITAIN.													
Week ended June 21	9		10				4		32	50		58	510
Corresponding week in	1912	9		11			1	2	34	89		97	1163
	1911	13		15			3	10				64	664
	1910		20				6	13			2	38	290
Total for 25 weeks, 1913	315		340				82	240	1627	3311	121	1174	16593
Corresponding period in	1912	484		542			80	164	2061	4600	162	1734	22315
	1911	459		572	1	18	103	271			302	1280	14050
	1910		781				174	279			314	688	6256

† Counties affected, animals attacked: London 3, York, West Riding 1.

Board of Agriculture and Fisheries, June 24, 1913.

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection.

Charles F. Parsons, M.R.C.V.S., and T. J. Brain, M.R.C.V.S., both of Cheltenham, gave similar evidence.

This concluded the case for plaintiff.

Mr. Wethered said no sum was arranged in advance with plaintiff, and, therefore, the Corporation must pay him such a sum as was reasonable having regard to the relevant circumstances; and the whole issue for his Honour was what was a reasonable rate of remuneration. He submitted that the only way his Honour could decide that question was by finding out what fees were paid under similar conditions in other districts. Looking through the abstract drawn up by the Committee of which Mr. Toope acted as secretary, one was struck by the prevalence of the figure 10s. 6d. So far as England was concerned there was no other place which approached Northumberland in the amount of this fee. The basis of remuneration seemed to be the time devoted to the work.

His Honour said it appeared to him that plaintiff's appointment was due to the fact that Mr. Holtham was unable, during the period in question, to carry out the whole of the duties for which he was appointed, so he could not see how the usual fees could be apportioned.

Frank Ernest Goodchild, chief assistant to the Clerk to the Gloucestershire County Council, said 16 veterinary surgeons were employed as inspectors by the County Council, and the scale of payment was 10s. for three hours, and an additional 5s. if the work took more than three hours.

Mr. Porter objected to this evidence as irrelevant, these being contract appointments.

George Holtham, M.R.C.V.S., Gloucester, Veterinary Inspector under the Board of Agriculture, said he took his appointment as a permanent one, though he was re-appointed annually. He was paid 10.6 a visit, and he remained at the market for between 3½ and 4½ hours each market day. He should have considered one guinea a day a reasonable fee for plaintiff considering that he (witness) was only paid half-a-guinea.

Alexander G. Elder, M.R.C.V.S., Tewkesbury, an inspector under the Gloucestershire and Worcestershire County Councils, thought a guinea a reasonable fee for the work done by Mr. Bogue.

Tom Valentine Pettifer, J.P., M.R.C.V.S., Tetbury, Veterinary Inspector under the Board of Agriculture and under the Gloucestershire and Wiltshire County Councils, agreed that a guinea would have been a reasonable fee.

John Buscombe, M.R.C.V.S., Stroud, an inspector under the Board of Agriculture and under the Gloucestershire County Council, also agreed with this sum, saying that plaintiff's duties were not so comprehensive as those of the permanent inspector. He was not satisfied with the ordinary remuneration of the permanent inspectors, which he thought should be a guinea a day. During the recent outbreak of foot-and-mouth disease he acted as inspector under the Board of Agriculture in infected areas, and he was paid two guineas a day for a whole day's work, though he was taken entirely away from his usual work.

Alderman H. R. J. Braine stated that plaintiff visited him with Dr. Bibby, though he did not know why Dr. Bibby accompanied him. He told plaintiff that if he sent in his bill for a guinea a day he would recommend his committee to pay it. Dr. Bibby said "Nonsense, you cannot ask a professional man to accept that." He (witness) added that it was no use plaintiff sending in a bill for two guineas a day because the Committee would not pass it; and as a matter of fact he opposed Mr. Bogue's charge from the beginning.—Cross-examined: The appointment to look after the Corporation's horses was an annual one. Mr. Weighill sold his business before the year was up, and at the end of the year Mr. Jones, as an older Gloucester citizen than Mr. Bogue, was appointed when the appointment came up for review.

Council then addressed his Honour, Mr. Wethered suggesting that a guinea a day was the sum for which judgment should be given.

His Honour said the appointment was an open one, no arrangement being come to as to terms. It was a very exceptional case, and under all the circumstances he did not think the amount asked for was at all unreasonable. He did not think the fees in permanent appointments were in point. He, therefore, gave judgment for the full amount claimed with costs.

The Court then rose for the day.—*The Gloucester Journal*.

### The Glasgow Veterinary College.

The annual business meeting of the Governors of this College was held in the Office of the Secretary (Mr. Alexander Russell) on Wednesday, 18th inst., Mr. J. Campbell Murray in the absence of the Chairman, Sir Hugh Shaw Stewart, Bart., presiding.

It was reported that the extensive reconstruction of the College was well nigh completion and that the number of entrance students had largely increased. In view of the new Summer Session which does not terminate until 15th July, it was impossible to submit the result of the session's work, and the number of students who have been examined by the Royal College of Veterinary Surgeons and passed or rejected, and it was arranged to hold another meeting of the Governors in the beginning of September when arrangements for the Winter Session would also be determined. The various Committees were appointed and the accounts approved.

### ARMY VETERINARY SERVICE.

Extract from *London Gazette*.

WAR OFFICE, WHITEHALL, June 17.

#### SPECIAL RESERVE OF OFFICERS.

##### ARMY VETERINARY CORPS.

The following Lieuts. (on probation) are confirmed in their rank :—S. E. Holmes, D. R. Williamson, J. A. McMenamin, R. C. Wheeler, W. E. Phipps.

##### TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. A. Douglas resigns his commission. Dated June 18.

June 20.

##### TERRITORIAL DECORATIONS.

The King has been graciously pleased to confer the Territorial Decoration upon the following officers of the Territorial Force, who have been duly recommended for the same under the terms of the Royal Warrant, dated August 17, 1908:

\* \* \* \*

##### ARMY VETERINARY CORPS.

Major W. G. B. Dickinson, Lieut. J. Storie.

INDIA OFFICE, June 17.

##### INDIAN CIVIL VETERINARY DEPARTMENT.

The King has approved of the promotion of the following officers of the Indian Civil Veterinary Department :—

Lieut.-Col. to be Col.—G. H. Evans, C.I.E. Dated Feb. 10.

June 24.

##### REGULAR FORCES. ARMY VETERINARY CORPS.

Maj. A. E. Clarke retires on retired pay. Dated June 25.

#### LIST OF GENTLEMEN WHO ATTENDED THE ARMY VETERINARY CORPS DINNER, 1913.

*Major-Generals* : R. Pringle, C.B., D.S.O. ; F. Smith, C.B., C.M.G. ; H. Thomson, C.B.

*Colonels* : L. J. Blenkinsop, Sir F. Duck, K.C.B. ; Kay Lees, C. E. Nuthall, A. Queripel, C. Rutherford, C.B., C.M.G. ; W. B. Walters, C.B.

*Lieut.-Colonels* : C. B. M. Harris, D.S.O. ; E. W. Larnder, J. A. Meredith, J. Moore, J. Reilly, R. Rowe.

*Majors* : A. E. Clarke, J. D. Edwards, W. B. Edwards, A. England, R. H. Holmes, E. J. Lawson, W. A. McDougall, E. E. Martin, W. A. Pallin, C. Rose, H. T. Sawyer, A. G. Todd, G. M. Williams, H. M. Williams, F. W. Wilson.

*Captains* : J. O. Andrews, E. P. Argyle, T. E. Burridge, W. J. Dale, O. S. Fisher, H. Kirby, A. S. Lawrie, W. I. Macauley, K. McL. McKenzie, R. W. Mellard, H. S. Mosley, W. R. Neale, T. A. Nicholas, J. S. Nimmo, A. Olver, F. C. O'Rorke, E. C. Russell, H. C.

Stewart, J. J. B. Tapley, W. H. Taylor, F. W. H. Thomas, L. M. Verney, H. C. Welch.

*Lieutenants* : G. V. Golding, T. J. Davis, J. Going, F. B. Sneyd, U. W. F. Walker.

*Lieut. & Quartermaster* T. E. Campey.

### Personal.

**WILLETT.**—On Thursday, June 19th, at Ivy Lodge, The Causeway, Staines, to Diana, wife of A. Ernest Willett, M.R.C.V.S., a daughter.

**JONES—MORGAN.**—On May 29th at St. Peter's Church, Bushley, by Rev. Canon E. R. Dowdeswell, John R. Arthur Jones, M.R.C.V.S., 10 Clarence St., Gloucester, son of the late Mr. John Jones, of Oswestry, Salop, to Lizzie, second daughter of Mr. Wm. Morgan, Hill House, Bushley.

Mr. WALTER BURT, sen., has, owing to ill-health, resigned his position of Veterinary Inspector under the Brighton Corporation. The Sanitary Committee have accepted his resignation, and have expressed their sympathy with Mr. Burt in his illness and their appreciation of the services rendered by him during the many years he has held the appointment.

Mr. WALTER BURT, junr., F.R.C.V.S., has been appointed to the vacant office at a salary of £52 10s. per annum.—*Brighton Herald*.

### OBITUARY.

G. H. ELDER, M.R.C.V.S., Taunton.

Graduated, Glas : Dec., 1875.

Mr. Elder's death occurred on Wednesday morning, 25th inst., from heart failure, at the age of 59.

### CORRESPONDENCE.

#### THE FINANCES OF THE R.C.V.S.

Sir.

Few will be greatly interested with the controversy that has arisen in your columns upon the Veterinary Surgeons Bill. All serious disputes about that Bill inside the profession is dead. It will be time to think otherwise when we see men offering themselves as candidates at Council elections against the Bill ; and it is years since any ventured to do that. No one who did so would have a chance of election.

But I desire to answer that correspondent calling himself "Diogenes," whose asinine letter appeared in your issue of the 14th inst. And first I may say that I think *The Veterinary Record* should establish some sort of letters patent or vested right in any *non de plume*, to be held by the first correspondent who assumes it. I used the title of "Diogenes" years ago ; and over it I think I wrote one or two letters that were of some little good to the profession. Naturally, therefore, I am incensed when the same title is annexed by the writer of one of the most fatuous screeds ever penned by even a veterinary correspondent. And so I proceed to demolish the said screed—and the task will be an easy one.

The letter of this pseudo-Diogenes is dangerous, because it voices a rather common and very pernicious superstition in the profession, viz., that the Council is "run" by teachers in the interests of the schools. Your correspondent affirms that "working practitioners are not sufficiently represented" upon the Council—he refers further to the Council as "a number of individuals who know know nothing about the requirements of ordinary practice"—and he concluded with the advice "Elect men as members of Council who understand the requirements of ordinary practice, and see that they form the majority." Could there be greater rubbish than this? *Such men already form the majority of the Council.* That can easily be proved by an analysis of the present Council—and, unless your correspondent can upset that analysis, the sentences I have quoted from his letter condemn him from his own mouth.



Let us enumerate the Council in sections. First take the men who are wholly, or in the main, practitioners, and may therefore be held to "understand the requirements of ordinary practice." They are Messrs. Abson, Banham, Burt, Carter, Clarkson, Dunstan, Garnett, Hobday, Lawson, Mason, McKinna, Mulvey, Price, Packman, Shipley, Slocock, Sumner, Trigger, and Wharam. Some may rank Mr. Sumner as a school representative. Certainly he is now connected with a school; but he is still in private practice, and was so for many years before he allied himself with a school at all. I class him as much more of a practitioner than a professor, and shall continue to do so until he himself objects. Mr. Hobday, too, was once a teacher for about seven years, but he has since spent nearly twice that time in private practice, which still occupies him. And what are the others, or what have they ever been, but working practitioners? And these practitioners altogether make up *nineteen* of the thirty-two Members of Council.

Then we have a second assortment composed of men who are or have been in the public veterinary services, with the addition of one who retired altogether (from *private practice* in his case) many years ago. They are—Sir Francis Duck, Sir Stewart Stockman, Maj.-Gen. Thomson, Maj.-Gen. Pringle, and Messrs. Mc J. McCall, Barrett, and Lloyd. They are seven—seven and nineteen make twenty-six Councilmen.

The teachers come last—and *least*, for they only number six. They are—Sir John M'Fadyean, Dr. Bradley, Profs. McCall, Mettam, Shave, and Share-Jones. Six! and yet your correspondent has the face to say that these six men "rule the roost," because "working practitioners are not sufficiently represented" upon the Council! In the face of the nineteen working practitioners I have named, could any assertion be more ridiculous?

It may be true that many members pay little heed to the Council elections. But it is certain that those who do vote, vote mainly for men whom they believe to understand the requirements of practitioners—and I may add that a teacher or a Government veterinary surgeon is not necessarily ignorant of or unsympathetic towards the needs of practitioners. I do not say that our present Council is an ideal one—I, and I suppose everybody else, could suggest individual improvements in its *personnel*. But I do say that its members have been elected because a majority of the profession considered them to understand the requirements of practitioners, and I point to the nineteen names I have mentioned as a proof that working practitioners themselves have a handsome majority upon the Council over all other interests combined.—Yours faithfully,

"DIOGENES THE FIRST."

Sir,

Your correspondent "Diogenes" in *The Record* for June 6 seems anxious to play the part of a Veterinary Chesterton and to be a New Witness to improprieties (?) on the part of some of our Councillors. His statement that the Council is "led" by a section composed largely of teachers naturally inclines us to turn to the Register. Here in the list of Members of Council we find the names of several past or present teachers and their relations. Mighty names, "Israelites indeed in whom is no guile," or as such we have always been taught to regard them.

In our remote provincial corner we have but little knowledge of "the prancings of our mighty ones" and "Diogenes" has not altered our own opinion of Council-members and their cliques, nevertheless Mr. Editor we hope that one section of or the whole Council will note that a "Veterinary Surgeon (unregistered)" has been advertised in your columns as anxious for a post as "superintendent." Further, we shall hope to see a "teacher" who has no veterinary diploma or qualifications prosecuted for using the title "Veterinary Inspector" when he takes up his appointment as such.

It seems a pity that the great efforts which our Council doubtless made to gain some say in the question of the appointment of "County Live Stock Officers" under the Board of Agriculture, or with its sanction have not borne fruit. We believe that Leeds and Bristol Universities have

appointed men to these posts—not members of the R.C.V.S.

Our own incomes have never given us need to worry over the investment of surplus, but as to the £3400 spoken of by "Diogenes" we, as Englishmen and hidebound Tories, would like to see an annual audit by the Public Trustee. We would devote it to: Veterinary benevolence, a dignified head-quarters and library for the profession, the protection of veterinary surgeons against quacks, internal and external, and veterinary research which should be *research* and not a mere political vindication of the Ministerial conduct of the Board of Agriculture and its official methods.—We are, Sir, yours, etc.

TWEEDLEDUM & TWEEDLEDEE.

#### A "VETERINARY" INSPECTOR—AND SOME FEES.

Sir,

I saw the other day that a doctor had been appointed veterinary inspector to the Local Government Board for Scotland. What next? At Gloucester County Court last Tuesday four veterinary surgeons (in giving evidence against a brother vet. who had claimed two guineas) swore that one guinea was a fair fee to charge for special work, inspecting cattle for foot-and-mouth disease from 8 a.m. till 1 p.m. To say the least they don't value their services very high, and no doubt the public take them at their own valuation. These are the kind of men who get up at veterinary meetings and talk about professional etiquette—raising the status of the profession, and such like humbug.

I enclose the paper containing the case.—Yours faithfully,

JAS. BLAKEWAY.

The Homestead, Malvern Wells.

[The report appears at p. 822].

#### Veterinary Societies—Addresses.

##### BORDER COUNTIES V.M.S.

Pres: Mr. J. W. Hewson, M.R.C.V.S., Wigton

Hon. Sec. (pro tem.): Mr. F. W. Garnett, M.R.C.V.S.,

Dalegarth, Windermere

Meetings, Second Friday of Feb., June, and October

##### NORTH MIDLAND VETERINARY ASSOCIATION

Pres: Mr. F. L. Somerset, M.R.C.V.S., Chesterfield

Hon. Sec: Mr. J. S. Lloyd, F.R.C.V.S., Sheffield

##### GLASGOW V.M.S.

Pres. Principal McCall.

Ten. Sec. Mr. J. Gibson, 16 Overdale Gdns, Langside, Glas

##### ROYAL VETERINARY COLLEGE M.A.

Pres: Dr. Lander, D.Sc.

Hon. Sec: Mr. B. Gorton, M.R.C.V.S. Assist. Mr. T. J. Davis

##### ASSOCIATION OF VETERINARY OFFICERS OF HEALTH

Pres: Mr. J. G. Reynard, M.R.C.V.S., Perth

Hon. Sec. & Treas. Mr. A. M. Trotter, M.R.C.V.S.,

Moore Street, Abattoir, Glasgow.

##### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS

Pres: Mr. J. Abson, F.R.C.V.S., Sheffield

Hon. Sec: Mr. Trevor Spencer, M.R.C.V.S., Kettering

##### NATIONAL VETERINARY BENEVOLENT & MUTUAL DEFENCE SOCIETY.

Pres: Mr. W. A. Taylor, F.R.C.V.S., Brick-st, Manchester

Hon. Sec: Mr. G. H. Looke, M.R.C.V.S.,

Grosvenor Street, Oxford-st., Manchester

Treas: Mr. J. B. Wolstenholme, F.R.C.V.S.,

Quay-street, Manchester

##### VICTORIA VETERINARY BENEVOLENT FUND.

Pres. W. Freeman Barrett, Esq. Fountain Ct, Temple, E.C.

Hon. Sec. & Treas: Mr. W. Shipley, F.R.C.V.S.,

South Town, Great Yarmouth

#### COLONIAL SOCIETIES (continued next page)

##### VETERINARY ASSOCIATION OF NEW SOUTH WALES.

Pres: Mr. S. T. D. Symonds, M.R.C.V.S., Chief Insp. of Stock

V. Pres: Major A. P. Gribben, F.V.O., M.R.C.V.S.

Hon. Sec. & Treas: Mr. Max Heury, M.R.C.V.S., B.V.Sc. (syd).

56 Bridge Street, Sydney.

**NATIONAL VETERINARY ASSOCIATION**

*Pres.* Mr. William Hunting, F.R.C.V.S.  
*Sec.* Mr. William Hunting, F.R.C.V.S., London, S.W.  
*Treas.* Prof. G. H. Wooldridge, F.R.C.V.S.,  
 Ryl. Vet. Coll., Camden Town N.W.

**Northern Branch:**

*Pres.* W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* A. W. Noël Pillers, (F)  
 74 Smithdown Lane, Liverpool

**LANCASHIRE V.M.A.**

*Pres.* Mr. G. H. Locke, M.R.C.V.S.,  
 Grosvenor-street, Manchester  
*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
 Town Hall, Manchester  
*Hon. Treas.* Mr. E. H. Stent, M.R.C.V.S., Preston-st, Hulme  
*Meetings*, 1st Thursday in April, June, Sept., & Dec.

**LIVERPOOL UNIVERSITY V.M.S.**

*Pres.* Mr. J. T. Share-Jones, F.R.C.V.S., University, L'pool.  
*Hon. Sec.* A. Richardson, M.R.C.V.S., 111 Arundel Av., L'pool.  
*Pathological Sec.* Mr. D. C. Matheson, F.R.C.V.S.  
*Meetings*, May, July, October, January.

**MIDLAND COUNTIES V.M.A.**

*Pres.* Mr. J. Martin, M.R.C.V.S., Wellington, Salop  
*Hon. Sec.* Mr. H. J. Dawes, F.R.C.V.S.,  
 Camden House, High-st., West Bromwich  
*Meetings*, Second Tuesday, Wednesday, Thursday, and  
 Friday alternately in Feb., May, Aug. and Nov.

**NORTH OF ENGLAND V.M.A.**

*Pres.*  
*Hon. Sec.* T. T. Jack, M.R.C.V.S., 3 Elmwood Ter, Sunderland  
*Meetings*, Third Friday, Feb., May, Aug. and Nov.

**NORTH WALES V.M.A.**

*Pres.* Mr. F. Booth, M.R.C.V.S., Colwyn, Denbighshire  
*Hon. Sec.* Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings*, First Tuesday, March and September

**SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.**

*Pres.* Mr. W. Awde, F.R.C.V.S., Stockton-on-Tees.  
*Hon. Sec. & Treas.* Mr. J. H. Taylor, F.R.C.V.S.,  
 Grange Road, Darlington  
*Meetings*, First Friday, Mar., June, Sept. and Dec.

**YORKSHIRE VET. ASSOCIATION**

*Pres.* Mr. J. Abson, F.R.C.V.S., Norfolk Street, Sheffield  
*Hon. Sec.* Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds  
*Hon. Treas.* Mr. A. McCarmick, M.R.C.V.S.,  
 Kirkstall-road, Leeds

**Southern Branch:**

*Pres.* Sir Stewart Stockman, 4 Whitehall Place, S.W.  
*Sec.* T. C. Toope, 34 High Street, Dover

**CENTRAL V.S.**

*Pres.* Mr. J. W. McIntosh, M.R.C.V.S., 14 Templar-street,  
 Myatt's Park, S.E.  
*Hon. Sec.* Mr. H. A. MacCormack, M.R.C.V.S.,  
 122 St. George's Avenue, Tufnell Park, N.  
*Meetings*, First Thursday in each month, except August  
 and September, 10 Red Lion Square, Holborn, at 7 p.m.

**EASTERN COUNTIES V.M.A.**

*Pres.* Mr. F. B. O. Taylor, M.R.C.V.S., Weston Longueville,  
*Hon. Sec. & Treas.* Mr. Sidney Smith, Junr., M.R.C.V.S.,  
 37 High Street, Lowestoft  
*Meetings*, Second Tuesday, Feb., July and Sept.

**LINCOLNSHIRE AND DISTRICT V.M.S.**

*Pres.* Mr. C. W. Townsend, F.R.C.V.S.,  
 Long Stanton, Cambridge  
*Hon. Sec. & Treas.* Mr. Tom Hicks, M.R.C.V.S.,  
 Boston Road, Sleaford  
*Meetings*, Second Thursday Feb., June, and October

**ROYAL COUNTIES V.M.A.**

*Pres.* Mr. David Wyllie, M.R.C.V.S., Tudor House, Staines  
*Hon. Sec. & Treas.* Mr. G. P. Male, M.R.C.V.S., Reading  
*Meetings*, Last Friday, Jan., April, July and Nov.

**SOUTHERN COUNTIES V.S.**

*Pres.* Mr. G. H. Livesey, M.R.C.V.S., Hove, Sussex  
*Hon. Sec.* Mr. J. Alex. Todd, M.R.C.V.S., Worthing  
*Hon. Treas.* Mr. E. W. Baker, M.R.C.V.S., Wimborne  
*Meetings*, Last Thursday, Mar., June and Sept.

**SOUTH EASTERN V.A.**

*Pres.* Mr. James Crowhurst, F.R.C.V.S., Canterbury  
*Hon. Sec. & Treas.* Mr. Theo. C. Toope, M.R.C.V.S.,  
 34 High Street, Dover  
*Meeting*, Second Wednesday in May; Maidstone

**WESTERN COUNTIES V.M.A.**

*Pres.* Mr. C. E. Perry, F.R.C.V.S., Staple Hill, Bristol.  
*Hon. Sec.* Mr. W. Ascott, M.R.C.V.S., Bideford  
*Hon. Treas.* Mr. P. G. Bond, M.R.C.V.S., Plymouth  
*Meetings*, Third Thursday, March, July and November

**Irish Branch:**

*Pres.* Mr. W. Watson, Municipal Buildings, Dublin  
*Sec.* Mr. P. D. Reavy, Leafield, Bundoran, Co. Donegal

**CENTRAL V.A. OF IRELAND.**

*Pres.* Mr. B. P. J. Mahony, M.R.C.V.S., Maryborough  
*Hon. Sec.* Mr. E. C. Winter, F.R.C.V.S., Queen-st., Limerick  
*Treas.* Mr. J. F. Healy, M.R.C.V.S., Midleton

**CONNAUGHT V.M.A.**

*Pres.* Mr. D. Hamilton, M.R.C.V.S., Ballina  
*Hon. Sec. & Treas.* Mr. A. J. Moffett, M.R.C.V.S., Galway

**VET. MED. ASSN. OF IRELAND.**

*Pres.* Mr. P. J. Howard, M.R.C.V.S., Ennis  
*Hon. Sec.* J. J. O'Connor, M.R.C.V.S., R.V. Coll., Dublin  
*Hon. Treas.* Prof. J. F. Craig, M.A., M.R.C.V.S.,  
 R.V. Coll., Dublin

**NORTH OF IRELAND V.M.A.**

*Pres.* Mr. J. A. Jordan, M.R.C.V.S., Belfast  
*Hon. Sec.* Mr. J. Ewing Johnston, M.R.C.V.S., Belfast  
*Hon. Treas.* Mr. J. A. Thompson, F.R.C.V.S., Lurgan

**Scottish Branch:**

*Pres.* Dr. O. Charnock Bradley, } Ryl. (Dick) V et.  
*Hon. Sec.* Prof. A. Gofton, } Coll: Edinburgh

**NORTH OF SCOTLAND V.M.S.**

*Pres.* Mr. W. Marsden, M.R.C.V.S., Banff  
*Hon. Sec. & Treas.* Mr. G. Howie, M.R.C.V.S., Alford, Aberdeen  
*Meetings*, Last Saturday in January and August

**ROYAL SCOTTISH V.S.**

*Pres.* Mr. Reid, M.R.C.V.S., Auchtermuchty.

**SCOTTISH METROPOLITAN V.M.S.**

*Pres.* Mr. P. Wilson, M.R.C.V.S., Lanark  
*Hon. Sec.* Mr. Jas. Henderson, M.R.C.V.S.,  
 Public Health Dept., City Chambers, Edinburgh

**WEST OF SCOTLAND V.M.A.**

*Pres.* Prof. John R. McCall, M.R.C.V.S., Vety. Coll. Glasgow  
*Hon. Sec.* Mr. J. F. Macintyre, M.R.C.V.S.,  
 19 Bank Street, Hillhead, Glasgow  
*Hon. Treas.* Mr. Geo. W. Weir, M.R.C.V.S.,  
 88 Crookston Street, Glasgow  
*Meetings*, Second Wednesday, May, Oct. and January.

**COLONIAL SOCIETIES: (see preceding page)****BRITISH COLUMBIA V.M.A.**

*Pres.* Dr. Gibbons, M.R.C.V.S., Vancouver,  
*Hon. Pres.* Dr. Hamilton, M.R.C.V.S., Victoria.  
*Sec., Treas., Registrar.* Dr. T. Jagger, V.S., Vancouver.

**CAPE OF GOOD HOPE V.M.S.**

*Pres.* Mr. J. D. Borthwick, M.R.C.V.S., Cape Town  
*Hon. Sec. & Treas.* Mr. R. W. Paine, F.R.C.V.S.

**CENTRAL CANADA V.A.**

*Hon. Sec.* Mr. A. E. James, Ottawa  
**VET. ASSN. OF MANITOBA.**  
*Pres.* Dr. W. R. Taylor, Portage la Prairie  
*Hon. Sec. & Treas.* Dr. F. Torrance, Winnipeg

**NATAL VETERINARY MEDICAL ASSOCIATION.**

*Pres.* Mr. H. Watkins Pitchford, Govt. Bacteriologist,  
 Pietermaritzburg

*Hon. Sec. & Treas.* Mr. J. B. Collyer,  
 Vety. Inspector Natal Police, Pietermaritzburg

**ONTARIO V.A.**

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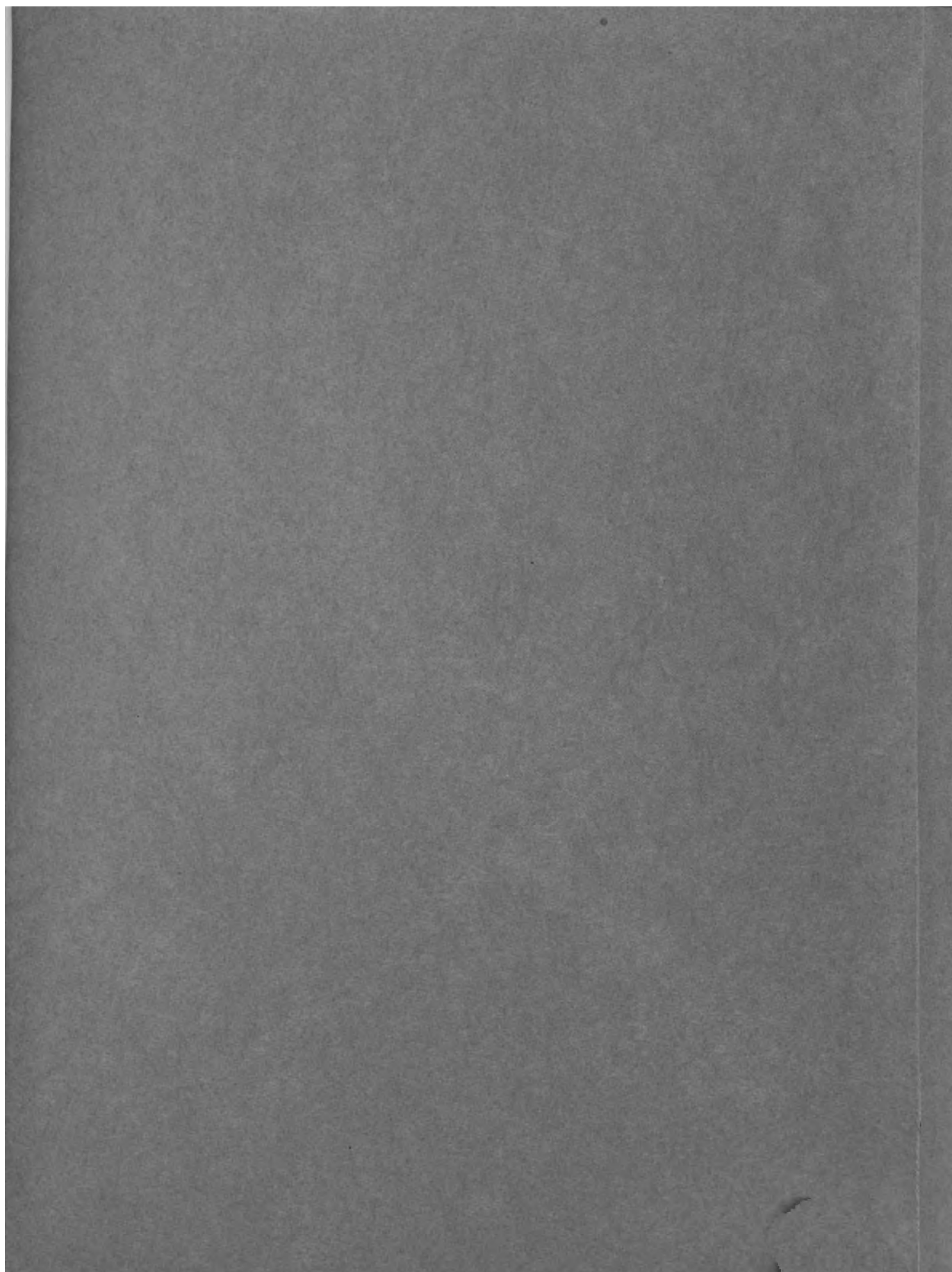












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